

# LORD BOYD ORR

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## As I Recall

The 1880's to the 1960's



AS I RECALL

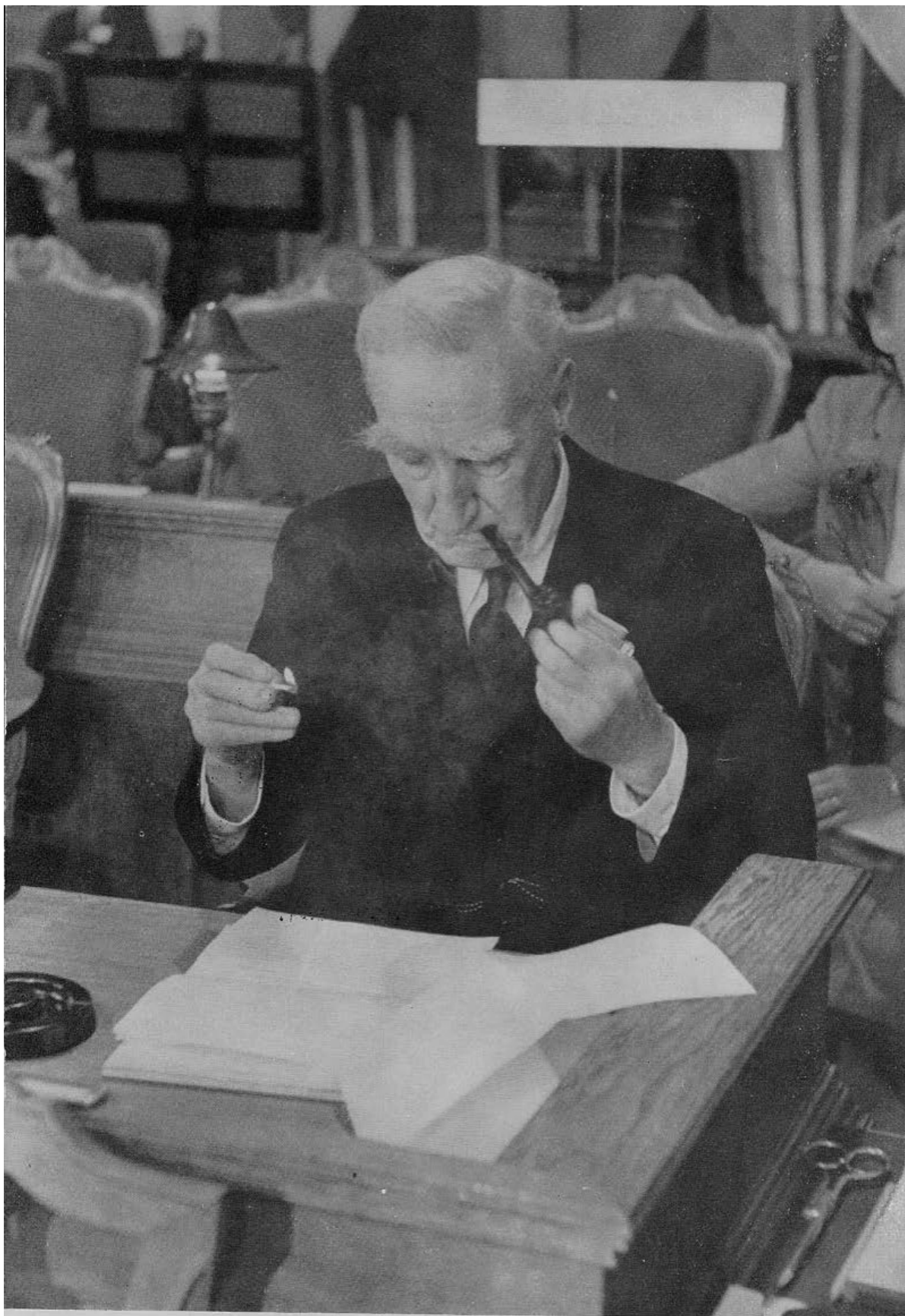


LORD BOYD ORR

## Previous publications

History of the Scottish Church Crisis of 1904  
Minerals in Pastures and their Relation to Animal Nutrition (1928)  
Food, Health and Income (1936)  
Feeding the People in Wartime (1940)  
Fighting for What (1943)  
Food and the People (1944)  
The White Man's Dilemma (1952)  
What's Happening in China (with Peter Townsend 1959)  
Feast and Famine (1960)





Director-General of the Food and Agriculture Organisation

LORD BOYD ORR

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**AS I RECALL**

With and Introduction by  
Professor Richie Calder

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To  
ELIZABETH PEARSON CALLUM M.A.  
(my wife)

to whose better judgment and continuous assistance  
is mainly due whatever I have accomplished,  
and whose unconscious charm  
has won us friends in every country  
we have visited.

## AUTHOR'S NOTE

I wish to acknowledge the very considerable assistance given by Elizabeth Thomas who revised the manuscript and saw it through the press. To her is due any literary merit this book may have.

LORD BOYD ORR



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## INTRODUCTION

### ABOUT THE MAN WHO WROTE THIS BOOK

BY RITCHIE CALDER

THIS is the story of 'Popeye'.

In this book, you will find him under many aliases—as a schoolteacher; as a distinguished medical student; as a research worker; as soldier (M.C., D.S.O.); as a sailor; as the creator of a world-famous scientific institute; as a Fellow of the Royal Society; as an evangelist for social justice; as a farmer; as a banker; as a Member of Parliament; as the director-general of the United Nations' Food and Agriculture Organisation; as the Chancellor of Glasgow University; as a Peer of the Realm; and as a Nobel Laureate for Peace. And if he chose to wear all the academic robes to which he is entitled, he could stage a one-man mannequin parade.

But in the affectionate irreverence of his family circle he is just 'Popeye, the Sailor-man'.

There was the occasion when the V.I.P.s of many nations were present at the premiere of Paul Rotha's *The World is Rich* which 'starred' the director-general of F.A.O. As the close-up of that knife-whittled face and rampant eyebrows came lunging out of the screen, his small grandchild, Ann-Pat, jumped out of her seat shouting, 'That's Popeye! What's Popeye doing up there?'

The public persona and the venerability of eminence and age conceal the Boyd Orr that his intimates know so well—the roguish, the pawky, the boon-companion, the man who goes around the world confiding in hotel managers that he and his wife are on their honeymoon. (And it is true; after fifty years of marriage they still are.)

But it is the warmth of this private contentment which has produced his burning resentment of human injustice. I once described him as a Scotch boiler in which the furnace is concealed. My own first experience with him was intimidating. It was in 1932 when, as a young reporter on the *Daily Herald*, I had gone up to Aberdeen on an errand which, to me, was not particularly exciting. I was doing an article on animal nutrition-'menus for pigs', as I

had called it disrespectfully. Dr. John Boyd Orr was the director of the Rowett Institute of Animal Nutrition. Nor was my reception particularly encouraging. I encountered a dour, truculent Scot, who made no attempt to dissemble his distrust of me, and of journalists in general. Reluctantly he showed me round the Institute—a curt tour which was singularly unrewarding for a reporter seeking 'copy'. And then his native hospitality prevailed and he invited me to coffee.

That cup of coffee was a point of departure in my life. I do not know what prompted my question, which, on casual acquaintance, was a rude one. Perhaps it was those remarkable eyebrows, which in later years I was to watch as cautiously as an engine driver watches his signals. Perhaps I read the signals then.

'Dr. Orr,' I said. 'You seem to have a chip on your shoulder. What's wrong? What's biting you?'

He did not bridle at the impertinence. He kindled. And he told me in no uncertain terms what was wrong. As director of the Rowett his job was to discover, demonstrate and convince farmers of the value of nutrition. That was easy (he said) because the scientists could prove to farmers that it paid dividends in terms of their flocks and herds. But there were bigger dividends to be paid in human wellbeing, yet he could not get people interested in the nutrition of children. He was particularly sore at that moment because he had carried out an experiment with schoolchildren in the seven largest cities in Scotland and in Belfast in Northern Ireland. This was the time of the Great Depression. The results had shown conclusively the remarkable improvement, which could be obtained in the health of children getting milk, either whole or skimmed, at school, to supplement their impoverished diets at home. At that time there was a glut of milk (because people could not afford it). Skimmed milk was being poured down the drain. He wanted the government to 'pour it into children's bellies'. This was later to be the milk-in-schools programme but at that time he was a frustrated and angry man.

He found a willing listener. Perhaps he was beginning to suspect that a journalist, whose job was to reach the public, might have his uses after all ! He invited me out for a walk.

I can still see him on that hill-top, addressing a one-man conventicle, with the fervour of his Covenanting forbears—a prophet,



with his feet squarely on the solid granite of Aberdeenshire, propounding the articles of his scientific faith.

Think of it (he said then, as he was to go on saying until his voice was to be heard the world over). A thousand million people in the world who have never had enough to eat, not only the famine-threatened millions, but the multi-millions more who, short of starvation, have never known what real health means. And a thousand million peasants and farmers in poverty because they cannot produce the food the hungry need, or if they could, would face ruin because of something called 'overproduction'. The world, through science and common sense, could produce the food. Think of the dividend, not only in farming prosperity, but in human well-being!

Years later—in May 1946—I was Special Adviser to Boyd Orr at the Washington Famine Conference which he had called—a conference which set up international co-operation and averted misery or even death for 75,000,000 people. He made a final speech. The delegates of twenty-three nations were exhausted by endless committees, but he fired them afresh. Afterwards, as a Scotsman who distrusts applause, he asked me what I really thought of his speech.

'John,' I said, 'I have liked it better every time I have heard it since that day at Bucksburn fifteen years ago.'

Of course, it was not the same speech; events had deepened and broadened its content and significance. But it was the same theme . . . Half the population of the world suffer from lack of sufficient food; farmers suffer ruin if they produce 'too much food'. Adjust our economic and political systems to let these two evils cancel each other out.

That constancy to a purpose was his embattled strength—a constancy resisting the expediency of politics and the cynical 'realism' of conventional economists.

In the ordinary way, I would have gone to Bucksburn, written the article, and like the ephemera, it would have blossomed for a day and been forgotten. Instead, that cup of coffee began an association, which, in time, was to lead me to every part of the world but also into that inward awareness which Boyd Orr awakens in everyone connected with him.

As a man he fascinated me. As you will gather from this book he

could have been successful in any one of half a dozen careers (and, in corporate eminence, eventually combined the lot). If he had not encountered Darwin's evolution on his way through university, he might have been a fundamentalist preacher in his father's austere kirk. When, after his interlude as a school-teacher, he went back to Glasgow University to study medicine, he finished up with the *prix d'honneur* of the medical faculty and his contemporaries predicted for him a successful and lucrative career in medical practice. But again he had a conscience-crisis when he encountered the medical meaning of poverty, in conditions which would defeat and defy his skill as a doctor, the malnutrition and rickets which made grotesque caricatures of slum children. That led him into a research course in metabolic diseases which added D.Sc. to the M.A. and M.D. after his name.

In this book he tells us how he became a soldier and a sailor but with characteristic reticence he diminishes the courage which brought him the M.C. (and bar) and the D.S.O. It took me a lot of patient research, with no help from him, to discover his citation for the D.S.O. in 1917. It read:

'He worked unceasingly for 48 hours without an aid-post and under almost continuous barrage, attending the wounded of three units of his brigade. He found time to visit the front line twice and attended to numerous cases under machine-gun and shell-fire. Although buried twice and rendered unconscious for three hours, he remained on duty until his brigade was relieved, displaying devotion and personal courage which were worthy of the highest praise . .

When, in the 1930s, some of his eminent colleagues were denouncing him for 'bringing politics into science' (although he was in fact bringing science into politics) he was nominated for Fellowship of the Royal Society. His two sponsors, among others, were the Nobel Prize winner, J. J. R. MacLeod, associated with the discovery of insulin, and Gowland Hopkins, the pioneer of vitamins, and his citation read,

'He carried out researches into protein metabolism and respiration, on the energy balance of the body and on the influence of vitamins and mineral constituents on normal metabolism and

diseased conditions. He had produced authoritative work on the agricultural aspects, particularly on the effect of the mineral conditions of the pastures of the herbivorae.'

It mentioned thirty original research-papers which he had produced. Amongst them was his explanation of how ducks duck!

This scientific reinforcement of an F.R.S. came at a time when he was 'asking for trouble'. He had launched his Food, Health and Income survey. This produced for the first time scientific, quantitative evidence of the state of nutrition of the British people. It was a startling document which showed that nearly 50 per cent of the population at that time (1933-4) did not have an income which could guarantee them the diet necessary for well-being.

Boyd Orr first produced the figures at the British Association annual meeting in 1935, and I as a journalist was ready to use the ammunition for which I had been patiently waiting. The report was political dynamite. In the 1935 election, every candidate had to be ready to answer questions on nutrition, which, until then, had been confined to the text books or the diet-cults.

Embarrassed ministers tried to 'shoot holes' in his findings. Eminent economists and statisticians were engaged to disprove his figures. They ended by confirming them. They could not help themselves because Boyd Orr had so carefully weighted his figures against any charge or exaggeration that any check-test could only prove them to be worse.

The result of the public outcry was 'Committees against Malnutrition' all over the country forcing the adoption of new social programmes like meals-in-schools.

Typically, in the British tradition, the government, which he had so embarrassed, gave him a knighthood.

The Food, Health and Income survey had its affect all over the world. Some twenty countries, with greater or lesser efficiency, made similar measurements. Nutrition was now an international social issue. The awakened concern reflected itself in the setting up of the Mixed Commission of the League of Nations. The account of this marriage of 'health and agriculture' is told in this book. That phrase was born at a luncheon in the Royal Societies' Club in London, with Boyd Orr, Frank MacDougall, then the economic adviser to the High Commissioner for Australia, and

Lord De La Warr, then the Parliamentary Secretary for the Ministry of Agriculture, at which I was present. This one will recognise as the forerunner of the Food and Agriculture Organisation itself.

But the survey, and the public discussion which followed it, were responsible for something else; they made possible the adoption of sensible rationing measures during the war because people had got used to the idea of calories, of essential vitamins and protein-requirements. When the war-time Ministry of Food came to apply these measures they had a receptive (and in some cases credulous), audience. I remember contributing to this credulity myself in broadcasts when carrots were plentiful and other foods were short and I did programmes on the night-fighters who developed 'cats-eyes' to see the enemy raiders by eating carrots. In fact, the vitamins in carrots do prevent night-blindness and it was not difficult to persuade people that whenever they ate carrots, which had other food virtues as well, they would be able to see better in the black-out. One thing is certain: Britain emerged from the war, in spite of the unexciting food we had to eat, a better fed and healthier nation than we went into it.

Boyd Orr played a curious role in war-time because, although he himself had been the author of so much which was then put into effect, the Establishment was still distrustful of him and his radical ideas about feeding the people of the world. While they were prepared to listen to him as an adviser, and as a member of commissions, on the practical needs of Britain in war-time, they still regarded him as a visionary. And visionaries complicate the tidy files of government departments! He was invited to go to the United States by some Americans who had been his colleagues in the League of Nations to get a world food policy based on human needs, and the visit was designed to get the Roosevelt administration to revive the League of Nations plan for food and agriculture.

Free-lance diplomacy is not encouraged by the government at any time, but in war-time it could be discouraged very simply—transatlantic transport would just not be available. Yet it was arranged. American friends contrived to invite him to speak to medical conferences, and it was a lot easier to let him go than to explain why he could not. He was able to discuss with the Roosevelt

administration and to lay the first paving-stones to what was to be the Hot Springs Conference.

Roosevelt summoned the Hot Springs Conference of 1943 to give effect to the 'Third Freedom', the 'Freedom from Want'. At the time I was in the Foreign Office and the Hot Springs Conference, being concerned with post-war aims, came within my purview but not my executive responsibility. I, therefore, had the exasperating experience of helplessly seeing the exchange of telegrams in which the American government were asking for the presence of Boyd Orr and the departments at Whitehall were explaining why he couldn't go. His views, said one telegram, were 'unorthodox'. This was absurd. The orthodoxy of Hot Springs had sprung from Boyd Orr's own gospel. Again, he managed to get there, but as a ghost. Paul Rotha's first film on the food situation *The World of Plenty* had been produced and had featured Boyd Orr. Copies were available through the British Information Service in the United States and Boyd Orr's loyal friends innocently asked for it and put on a show for the delegates of the Hot Springs Conference. Boyd Orr's rousing challenge 'What are we fighting for?' and his own answer brought the delegates cheering to their feet.

Out of the Hot Springs Conference came the Interim Commission which planned what eventually became the Quebec Conference to bring the Food and Agriculture Organisation of the United Nations into being in 1945. Boyd Orr was then Independent Member of Parliament for the Scottish Universities and the Labour government overlooked him as a member of the delegation until, at the last moment, through the intervention of Philip Noel-Baker (who was to become a fellow Nobel Peace Prize-winner) he was asked to go as an adviser.

You can read his own story of the founding conference at Quebec but I like to think of his tryst with history as a picture of an Old Testament Prophet who speaks in the idiom of twentieth-century science climbing the Heights of Abraham above the Chateau de Frontenac where the conference was meeting and how the Elders of the Congregation followed him up to the heights and led him back to become the first director-general of the Food and Agriculture Organisation. And I also like to remember his pronouncement at that time when recognising how nations, jealous

of their sovereignty, had hedged around the functions of F.A.O. He said 'The people are crying out for bread and we are going to give them statistics'.

As director-general, he never reconciled himself to these limitations. He surrounded himself with like-minded people from all over the world (we called them 'Sir John and the Twelve Apostles') who were, like himself, well-informed enthusiasts. But some of them were not good 'office-wallahs' and presently he was being criticised as a bad administrator. This was a manifest slander on the man who had built up one of the greatest research institutes in the world, largely by his own endeavours, and who is one of the shrewdest business men I know. But he was undoubtedly impatient of office routine and of the pettifoggers. He regarded himself, and rightly, as the torchbearer for the Organisation and his job as the firing of public imagination. He certainly did that.

The first big challenge which he seized upon was the threat of post-war famine. F.A.O. had come into being in October and the first United Nations General Assembly met in London in the following January. The delegates to the U.N. saw clearly with eyes which were not yet blood-shot with renewed animosities that there were two great threats—the Atom Bomb and the imminent famine due to war havoc. They passed two resolutions, one setting up the U.N. Atomic Energy Commission, due to become a fiasco, and the other calling for action on the world food situation. Boyd Orr, his infant organisation still in its diapers, rushed in. I remember some of his best friends telling me (and probably him) that he was crazy. He offered to call an immediate conference and to provide documentation on the world food situation. I shall not anticipate what he himself has to say about the Famine Conference in Washington in May 1946 but I recall what an exhilarating experience it was, because he borrowed my services from the News Chronicle on which I was then the Science Editor. Nations who gathered for that conference, producers and consumers alike, accepted self-denying ordinances which enabled the food in short supply to be thoroughly rationed. The International Emergency Food Council which it set up continued to supervise the fair shares and averted disaster by regulating the situation for a period of three years. Then it was wound up. But out of that conference also came the demand ('the ventriloquial



voice of Boyd Orr') that the director-general of F.A.O. should prepare a plan to prevent such a situation from arising again. He tells his own story of that and what happened to the plan he produced. When he was sadly contemplating the wreckage of his scheme, I told him that he was 'two jumps ahead of history'. Since then history has made at least one jump. Seventeen years later, his scheme was accepted as practical politics. A Labour government came into power specifically committed to 'revive the concept of the World Food Board for the disposal of agricultural surpluses'. This was historically very interesting because in 1947 the head of the British delegation to the preparatory commission of the World Food Board was a Junior Minister, thirty-one years old, Parliamentary Secretary to the Ministry of Works. He spent four months in Washington on that commission which had been appointed to examine the possibilities of Boyd Orr's scheme and which discarded his proposals and substituted a wraith, a helpless World Food Council which was no more than the Executive Board of F.A.O. under a different name. The name of that Junior Minister was Harold Wilson.

In his book *War on World Poverty*, written in 1953, he explained why things went wrong: 'The main reason was the sudden reversal of the U.S. attitude to international agencies which at the same period was responsible for the death of U.N.R.R.A. (The United Nations Relief and Rehabilitation Agency). The United Kingdom who were anxious to co-operate in international action to stabilise foreign prices, expand food production, and to attack the problem of world hunger, could not, on the eve of the 1947 dollar crisis, contemplate the subscription of hundreds of millions of dollars as her contribution to the International Buffer-Stock Fund.'

The young Minister of 1947 became the Prime Minister of 1964 and remembered the World Food Board, which most people had forgotten—the first courageous attempt at supra-nationalism in history. As Mayor La Guardia of New York, then the director-general of U.N.R.R.A., said 'The World Food Board will take food out of politics. It will take human lives off the Chicago ticker-tapes.'

In his concluding months as director-general Boyd Orr kept on reminding people, the heads of states whom he visited, the statesmen, and the public, of the grim portents which we now see

so clearly. When he left the Food and Agriculture Organisation it lapsed into the pedestrian and narrowly functional concern, from which he had tried to save it. For years, until the Freedom from Hunger Campaign reminded people of what he had been saying so vigorously, it was clearly concerned more with the commodities than with the people who needed these commodities. He had served notice that failure to carry out measures for the elimination of hunger and poverty would lead to the spread of Communism which could promise production-for-consumption by the people and that the danger of another economic crisis, with wide-spread unemployment, would be held as the predicted failure of capitalism to meet the needs of the masses. 'What is called "communism" in developing countries,' he once said, 'is hunger becoming articulate.'

At the end of his self-restricted term of office he, like Cato the Elder, retreating to his Sabine farm, went back to Newton of Strathcathro, in the foothills of the Grampians, where he had his two sons-in-law in farms nearby so that all his family, daughters, sons-in-law and grandchildren lived within hailing distance. It was, as all his friends knew, a self-deception because the fire still burned. Even in his parting from F.A.O. he launched a new crusade—warning the world of the effects of the swarming world population and of the destruction of the soil which had to feed it.

When the Labour government made him a peer someone suggested he should call himself 'Baron Soil' but I suggested he should take the title of 'Lord Either Orr Else'. The Daily Express received his ennoblement with derision, 'They have made a peer of the prophet of woe who is always wrong'. On the contrary he had consistently been a prophet who read aright the prognosis of the scientific facts of the situation and, by his own efforts, sought to disprove his prophecies.

He was awarded the Nobel Prize for Peace in 1949 in recognition of his efforts to ensure and secure peace by applying the truth of science to the removal of the base injustices of hunger and poverty, the playground of insensate politics and blind economics. Typically, he gave away his prize by dividing it among the organisations working for peace. He did not even put aside enough to pay a secretary and for years Bess, now Her Ladyship, continued to type his letters with two fingers. When, in his moment of

generosity, some of us reminded him that he would want to travel and should have saved his money to do so his reply was 'we can always sell a cow!' And travel he did. He would not go anywhere without Bess. 'Anywhere' was 'everywhere'. He went to Russia to try to break through East—West tensions and restore East—West trade. He went to China and tried, when he came back from his visits, to convince people of the truth of what was happening in that great country. He saw the real nature of the Chinese revolution, how it would appeal to the under-privileged people by example, because in its practices it was nearer the realities of the peasant peoples of the world than anything which was expressed in Teutonic, or even Russian, Marxism, and he kept on warning the West that the only answer to Marxism was something better.

I remember when he lost his son, Billy, during the last war, and I was offering my condolences, he said 'Now I have to do the job for his generation'. And since then he has devoted himself to the hopeful world of the young while resenting and resisting the threatening world of the elders. He has identified himself with every peace movement that I can think of.

John, Baron Boyd Orr, of Brechin Mearns, emerges from this book as the embodiment of the social-purpose of science. He emerges as the good physician who put 3,000,000,000 patients on his 'panel'; as the practical farmer who extended the stone-dykes of his Grampian farm to encompass the earth; and as a research scientist who made the whole world his laboratory.

PART I

From  
Childhood to Research  
Graduate  
1880-1914

## CHAPTER I

### FAMILY AND CHILDHOOD

I was born in Kilmaurs, Ayrshire, in 1880 in an affluent phase of our family's fluctuating fortunes. My father, whose mother was left a widow when he, her only child, was a baby, had a chequered career. He was a remarkable man of great ability. He could build up a successful business and then lose the money he had made because he was much more interested in religion and allied subjects than in business. So soon as he had made what he considered sufficient money, he neglected his business for the reading of books on these subjects. Before I was born he had been so successful in shipping in a small way that he decided to retire, but on a sudden reversal of fortune had to begin business again. He changed his occupation three or four times.

My father had a striking and somewhat dominating personality. He was six feet tall with an erect carriage, and gave the impression of considering himself a very superior being. He had great physical and moral courage. I remember reading a story about him in the local weekly paper, *Ardrossan and Saltcoats Herald*, under the heading of 'Fifty Years Ago'. The vane on the town steeple of Saltcoats, where he lived, had got rusted and did not turn with the wind. The cost of erecting scaffolding to get up to it was being discussed when he said he would go up without scaffolding. He took a number of ladders up to the top of the square part of the tower, then fixed one of the ladders to the sloping side of the spire, and added other ladders as he went up to the vane. He loosened it, brought it down, and then took it up again cleaned and regilded. The children got out of school to see 'the human fly' walking up the steeple.

My father's father died about fifty years before I was born and had been pretty well forgotten. I never learned much about him, but my mother's father who died when I was a child was well remembered. He was a quarry master with about thirty or forty employees. He attended church and refused to play cards on Sunday, but, unlike my father, was not bothered much with religion. When the minister was seen coming to the house he

would slip out of the back door saying to his wife 'Give him a dram (a glass of whisky) and get him away'. He took a lead in social activities, was Grand Master of the local Freemasons' Lodge, chairman of the Curling Club and other local committees. I have often been told by people who knew him that I resemble him.

My mother inherited his congenial character. Everybody liked her, and I have vivid recollections of her kindness. She was a beautiful singer and used to sing us old Scots' songs and ballads. Once, when a child, I had been out playing in my bare feet on a summer evening and went in dog tired and sleepy. She took me to be washed before putting me to bed, but I was so sleepy I begged her to let me go without washing. She looked at me half asleep in her arms and said 'It's a poor pair of sheets that can't for once take a weary, dirty wee boy'. Kissing me she tucked me into bed without even hearing my bedtime prayer. I admired and had a great respect for my father who was always kind and considerate though rather aloof, but I had an intense love for my mother who was more intimate and invariably kind. From neither did any of the family ever receive any punishment, not even being sent early to bed. The worst any of us ever got was my father telling us how stupid and sinful was something we had done.

When I was five years old my father, who had had his biggest reverse of fortune, moved from Kilmaurs to West Kilbride and started business as a house painter, the trade to which he had been apprenticed when a boy. This was a move to a better environment. The house in Kilmaurs had a few grass fields to play in, trees to climb and a burn to wade in, but it lay in a hollow with no view. The village of West Kilbride lay among hills a mile from the shores of the Firth of Clyde. It is, in my opinion, the most beautiful village in Scotland. From an east window in my bedroom I could look across the village to the Crosbie Hills with their prehistoric cup and ring marking; from another window across a valley to the Tarbet Hill, and from the Corse Hill behind the house there was a magnificent view of the Firth of Clyde and, in the distance, the Western Highland hills. From the top of the Yerton Brae, in the autumn, I could see the gorgeous sunsets behind the Arran Hills, and on a full moon in frosty weather see the snow-clad Arran Hills with the moonlight gleaming on the waters of the Firth of Clyde.



We lived in a spacious old house. My father had taken a thirty years' lease of a building which had had four tenants and reconstructed it as a single house, so we had plenty of room. One could always get away from the rest of the family to be alone to read or think, a most important feature of home life. Not till I went to Glasgow as a student and found working-class families living in a room and kitchen up two stairs with nowhere for children to play except on the stairs, did I realise how fortunate I had been to be reared in the country with fields to play in, hills to roam over, able to swim in the sea in summer, and in winter to see the sun rising and setting and wonder at the stars and what lay beyond them. I was shocked by the horrible conditions of life in the slums of Glasgow which I learnt later were as bad in Edinburgh and some other cities in the north of England. These were worse than in any country in Western Europe.

Character and physique are largely defined by environment in childhood. The provision of houses where the poor can live in comfort and decency and enjoy a diet adequate for health would do more to stop youthful delinquency and crime than law courts and prisons. I was so impressed with the misery and dreadful waste of human life in the Glasgow slums that, with a son of H. G. Wells who was an architect, we wrote a fiery pamphlet on housing, condemning it as a disgrace to politicians who either didn't know about conditions in the slums or didn't care for the welfare of the poor.

We were a family of seven, a sister and two brothers older than me and two brothers and a sister younger. I was helped and disciplined by the older ones, and no doubt performed the same useful service for those younger than me. My elder sister, the oldest of the family, was a saintly person and tried to keep her young brothers in the paths of righteousness. My two older brothers married good wives and managed to live in comfort, undisturbed by any ambitions for greater wealth. My two younger brothers became clergymen. My young sister, with a good head for business, never married and is now in charge of affairs and head of the family. It was a happy home where we were allowed full freedom and never even hounded to do home lessons. My father, however, was a religious man and we had family worship every evening at ten o'clock when the front door was closed for the night.

Our father's mother, a widow, lived with us. She had been born in 1810 during the Napoleonic War, and died in her eightieth year when I was nine years old. She taught me to read before I went to school, and told me many exciting stories about the smugglers and of the press gangs hunting for men for the navy. Smuggling must have made a deep impression on the people. As late as the 1890s a favourite boys' game was 'Smuggle the Keg', one side being smugglers and the other revenue officers. It was a rough fight to get some object representing a keg of brandy through to a 'den'. In my grandmother's young days the village was isolated, with no newspapers and little contact with the outside world. A rumour arose that the villagers had got out of step with the days of the week and were going to church on Saturday and, dreadful to relate, working on Sunday. Her father, a farmer, got out his gig and went to Saltcoats seven miles away to find out what day of the week it was. When he got back, the beadle of the parish church, who rang the bell at six o'clock in the morning to let the people know it was time to get up, and at six o'clock at night for them to stop work, was ordered to keep the score of the days and to ring the bell at eight o'clock on Saturday night to let them know that the next day was the Sabbath. The eight o'clock bell continued to be rung every Saturday night till the war of 1914-18 when, as a war measure, the regular ringing of church bells was stopped. My grandmother told me stories about the kind of life the people led in the early part of the nineteenth century. This gave me my first interest in the social history of Scotland, not so different, as I learned later, from that of other Western European countries.

Friends would call at our home in the winter evenings and there were discussions on the doctrines of different branches of the Christian Church and on allied metaphysical questions such as determination and free will. There were also discussions on the political issues of the time—Home Rule for Ireland, the Disestablishment of the National Church, proposals for old-age pensions, and the threat to society of the new socialist party. The religious and political discussions, sometimes with visitors and sometimes confined to the family, taught me to think for myself and read the many books in the house on these subjects. But these intellectual exercises occurred only occasionally. On most evenings the younger children played on the floor or at tiddly-winks,

draughts or other games while the older folk read. When we had a party we played parlour games devised by ourselves, and sometimes experimented with telepathy and levitation. Nor was there much to do outside the home except a weekly meeting of a Mutual Improvement Association, a weekly choir practice in the church, or once or twice in the winter a visit by a travelling concert party. In a religious household 'promiscuous dancing' was considered an evil. I never heard dance music until I was twenty-seven years of age, played by a farmer with a fiddle at a dance in a barn with a concrete floor. I have never missed a dance since right up to 1965 when my wife and I led the Grand March at a family and farm gathering.

These home activities in the quiet winter evenings, common to most families in Scotland at that time, stimulated independent thought and produced individualists holding and defending views different from the rest of the community. The noise of life today makes quiet thinking difficult and people too easily conform at a lower intellectual level to the views of television, radio and the popular press.

In the 1880s men in most trades worked a fifty-six hour week. By 1900 it had come down to a fifty hour week and it is now about a forty hour week. This is due to the great advance in modern technology whereby machinery has lifted the burden of muscular labour from men's shoulders. In those days women worked as hard in the home. There were few cooking appliances and mothers of large families had to work hard cooking and making most of the clothes for the children. Mostly families were large, however, and the older children helped with the housework. This created a strong bond of union in the families of those days. The villages and smaller towns where most of the population lived were largely self-contained both economically and intellectually. Every district in Scotland had its local paper devoted mainly to local affairs. In our village we had the Ardrossan and Saltcoats Herald, a paper of high literary value which gave its readers a good deal of information about parliamentary business.

In the long winter evenings the people, though not so well informed as the people of today, had time to think. Many of their pleasures were intellectual; they might be studying some special subject and preparing a paper on it for the Mutual Improvement

Society or the Literary Association, after which there would be a debate. The times bred independently thinking people, and not a few characters. Ordinary work people were able to engage in frequent discussions, especially on politics and religion. One workman who took a great interest in politics always wrote a series of articles for the Ardrossan and Saltcoats Herald after every Budget, explaining and often criticising the measures in it.

Today we have labour-saving devices, electricity and other modern conveniences, but it is doubtful if people are happier than they were in the 1880s. At that time there was no fear of war. There were frequent skirmishes to maintain law and order in the Empire, but there had been no great war in which Britain was engaged since the Crimean War. With the advance of science everything was thought to be on the up-and-up. God was in His Heaven and Queen Victoria was on the throne, Britain maintained the Pax Britannica and there was no thought of wars or conscription.

In the 1880s almost everybody attended church regularly, and most believed in the authenticity of the Scriptures and thought of the Christian religion as the only true religion which would ultimately be accepted by all mankind. But changes were beginning to take place, and with some of these I became involved. Darwin's theory of evolution which suggested that man had been specially created about four thousand years before the appearance of Christ began to be replaced by the new idea that man was related to and had evolved from a lower species nearly a million years ago. The people began to be divided between those who had at least a partial acceptance of the new ideas and the fundamentalists who still believed in the verbal inspiration of the Bible. The Churches with the wider outlook began to amalgamate, but the Fundamentalists held out for the old Calvinistic Presbyterian religion. At the time of the amalgamation of the Churches my father, who was a Fundamentalist, vigorously supported the minority, and as feeling ran high he came in for a great deal of criticism. I, who had discarded the old beliefs after leaving home and never attended church, rallied along with my brothers in his support in the exciting battle. As the majority were in favour of the Union of the Churches and the newer and freer outlook, there was little propaganda for the minority. I had just completed my arts course at Glasgow University and I wrote a book, *The History*

of the Scottish Church Crisis, in favour of the orthodox group. Such was the interest in the controversy that the book was sold out within a few weeks.

Today, instead of about 99 per cent of the people attending church regularly, there are only about 10 per cent. Whereas, on the Sabbath Day, all the blinds of the shops used to be pulled down in case people going to church should have their thoughts distracted by worldly affairs, now the shops are almost as well lit on a Sunday as they are during the week. The old reverence for the Sabbath Day still exists in the Highlands of Scotland. Since my youth I have seldom attended any church, though when staying in Hull with Mr. Alec Horsley, who is a Quaker, I attend the Friends' Meeting House. This is a room with no ornaments or crosses, stained glass windows or clergymen in beautiful robes to control the worship. The members meet and sit down in silence, giving the subconscious mind time to think. The Quakers have no doctrines. Every person is free to believe as his conscience decides, and their religion is expressed in applying the principles of the Sermon on the Mount. This international group received the Nobel Peace Prize for its great work for peace and for relieving hunger and poverty throughout the world—one of the causes of war.

## CHAPTER 2

### SCHOOLDAYS: PUPIL AND PUPIL TEACHER

IN THE nineteenth century Scotland was probably the best educated country in the world. At the time of the Reformation in the sixteenth century, John Knox, who established a theocracy in Scotland, put a school in every parish, under the supervision of the local church which saw to it that religious instruction took a prominent place in education. In 1874 the state took over the schools from the Church, but religious instruction was retained. Every pupil had a copy of the Shorter Catechism with theology explained by question and answer in simple language. On the back page was the multiplication table—an excellent primer for a religious life and a successful commercial career. Education in the parish schools was at such a high level that many pupils educated by the village schoolmaster were able to pass the university entrance examination, though this must have been on a lower standard than it is today. Scotland had a number of secondary schools which England lacked until an Education Act in 1902 promoted by A. J. Balfour made it possible for local authorities to establish secondary schools. The Scots were keen on education and many families sacrificed themselves to give at least one son a university education. Scotland had thus a far bigger proportion of university educated men than England.

When I was a boy religious instruction still formed a prominent part of education. We all had to learn the Shorter Catechism and parts of the Scriptures off by heart. We were examined once a year at the Christmas prize-giving by three clergymen who were members of the Parish School Board. The school day opened with the singing of a hymn. One I remember was 'Rescue the perishing, care for the dying; Jesus is merciful, Jesus will save'. Another common one was 'Childhood years are passing o'er us, soon our schooldays will be done; cares and sorrows lie before us; hidden dangers, snares unknown'. The sentiments of the children, who were all anxious to leave school, were rather different. One of the older pupils amended the last two lines to 'A better future lies before us; no more lessons, much more fun'.



The schools were uncomfortable in winter. A coal fire at one end of the room had little effect on the pupils who sat shivering at the other end. The school hours were from nine till four o'clock with an hour off for lunch. Some of the children had to walk long distances to and from school. The discoverer of penicillin, Sir Alexander Fleming, was an Ayrshire boy, who had had to walk four miles to school. There was no provision for food. The children brought a 'piece' which they ate in the school shed. In the cold winter days the children were keen to get back into the shelter of the school and used to sing round the doors: 'Teacher, teacher, let me in, my feet are cauld and my shoon are dune; and if ye dinna let me in, I'll play truant in the afternune'.

When I was thirteen I won a bursary and was sent to Kilmarnock Academy, about twenty miles from my home. Fortunately or unfortunately for my education, my father owned a quarry about two miles from Kilmarnock and I was sent to lodge with the tenant of a house near the quarry. I found life at the quarry among the navvies and quarrymen much more interesting than walking two miles to the Academy in Kilmarnock. I was allowed to fire the engines and work the crane and mingled as I wished with the workmen who taught me to smoke, and from whom I gathered a wonderful vocabulary of swear words.

Part of my pocket money for lunch in Kilmarnock was spent on buying the penny and twopenny 'blood and thunder' stories of the Wild West. These were forbidden and had to be smuggled into the house when I went home. I still remember the stories and names of some of the books—Panther Paul the Prairie Pirate, Icicle Isaac from Frozen Flats, Deadwood Dick in Denver City and other alluring titles. Such was my first introduction to English literature! So far as I can remember they were good clean stories of adventure, suitable for a boy of thirteen or fourteen years and, on the whole, better than some of the Westerns on television today.

My report from the Academy must have shocked my parents for I was taken home and sent again to the village school where I was soon taken on as one of the four pupil teachers. It was customary then for one or two suitable pupils of about fourteen to be taken on to the teaching staff as pupil teachers serving a kind of apprenticeship to the teaching profession. The headmaster invited

me to become one and I accepted. I was paid £10 the first year, rising to £20 in the fourth year.

At that time the family fortunes, following the disastrous quarry venture, were at the lowest level. My father was working very hard with only a few hired men so as to make as much money as possible. The spring was the busiest time with so much work that it was difficult to get it all done. Work began at six o'clock in the morning. In order to help my father I got up and worked from six till eight o'clock. At eight I went home for my breakfast and then on to the pupil teacher class at 8.30. We taught from nine to four, after which we had another half-hour of instruction and then home to study for examinations for an hour or two. It was a hard life, common at that time in many Scottish families who stinted themselves to get a son or daughter to the university.

The gloom of these days of relative poverty and hard work was relieved by my friendship, beginning when I was fifteen, with a girl about a year younger, who lived near me. Her family had a white French poodle and on winter evenings she could get out to give the dog a walk. Knowing, probably from her, about the time she would be out, I looked for the white dog and then we would go roaming in the gloaming for an hour by the Bonnie Firth o' Clyde. In summer we met in an unfrequented shady glen. The vivid recollection of these early days has been a great pleasure all my life. She also must have enjoyed our more than friendship, for once, when she was about seventeen, her teacher asked the class what lines of poetry they liked best. She replied, 'There's nothing half so sweet in life as love's young dream'—to the great amusement of the class and her embarrassment.

Oh talk not to me of a name great in story,

The days of our youth are the days of our glory. The myrtle and ivy of sweet seventeen

Are worth all the honours that ever were seen.

She went to Edinburgh University when I went to Glasgow. I was not in a position to marry her until I took the research post in Aberdeen at £360 a year in 1914, but for the next fifty years we have enjoyed the intimate friendship of our youth.

The schools in those days were strong on the classics. Latin was the dividing line between boys wishing to go to the university

and those with no such ambition. The schoolmasters were well up in the classics and though Peter McConkey, the headmaster, had never been to a university, he read Latin, Greek and French almost as easily as English. Indeed he published a book of translations of extracts which he thought the most beautiful. In my first session at the university I devoted nearly all my time to the study of Latin, neglecting mathematics, my other subject. I managed to get through the Latin degree examination and have never looked at a Latin book since. The only Latin author I was interested in was Tacitus who could give lucid expression to an idea or describe an event with fewer words than any other author I had ever read.

Having done little or no work on mathematics, I went up for the degree examination in fear and trembling; fortunately, from what I had learned myself before going to the university I was able to answer a sufficient number of the questions to enable me to scrape through. I still deplore the waste of time spent on Latin and Greek when I would much rather have studied mathematics. All our seven grandchildren study Latin, and the boys at Eton do Greek in addition. Our mediaeval education dies hard.

When I had got past the stage of the 'Penny Dreadful' literature, during any spare time left over after studying the examination subjects which, apart from mathematics and essay-writing I found a bore, I read a great deal about the stars and plant and animal life. Fortunately our house had lots of books including a Chambers Encyclopaedia where one could always find information on anything one was wondering about. Some knowledge about the universe and the manifestations of life on our planet, can lay a better foundation for a full intellectual life than knowing by heart all the irregular verbs or other verbal niceties in Latin and Greek.

To get back to the old schooldays: for those who were not going to the university life in the senior classes was pleasant. The old schoolmaster took the view that it was not worth while giving advanced education to a lot of farmers' and farm servants' sons who were going to spend their lives growing crops and tending cattle. He taught them a little book-keeping which he thought would be useful to them, and also a good deal of composition to enable them to write letters. He also tried to give them an interest

in art by giving them drawings to copy. The older pupils had a good deal of spare time on their hands and were allowed to slip in and out of school pretty much as they pleased. With no hard studies, some of them got into mischief. On one occasion my elder brother slipped out of the classroom, managed to climb on to the roof of the school and placed a slate across the chimney of the headmaster's room. He then put a turf on top of the slate to prevent it being blown off. Soon the schoolroom was so filled with smoke that the pupils had to be allowed out. At night he went back and removed the slate and the turf so that when workmen came next day to see what was causing the obstruction, they informed the headmaster there was nothing wrong with the chimney. But next day, the same thing happened, and this went on for a day or two with an argument going on between the headmaster and the chimney sweep until some passer-by saw my brother edging along the rigging and watched him put the slate and turf on top of the chimney. The headmaster was informed and my brother was given a good caning.

Many other tricks were played on the headmaster. He wore a morning coat with two big pockets which were always full of newspapers and various other papers. At the threshing of the grain stacks at the farms some of the country boys caught mice, brought them to school in a box, and when the old man was passing up between the forms they slipped a few of the mice into his pockets. When he felt the movement in his pocket he would take out all the papers to see what it was and out jumped the mice to the great amusement of the class and the anger of the old man who could not find out which boy had presented him with the livestock !

The children weren't bothered with the many examinations they have today. Two school inspectors appeared once a year to examine the children and the pupil teachers. The headmaster gave them an excellent lunch, and the afternoon part of the examination was very pleasant. Unless there was something drastically wrong, the report was good enough to warrant the government grant which was estimated according to the number of pupils and attendances.

In my second year as a pupil teacher the old headmaster retired and was succeeded by John G. Lyon who, by studying at home,

had won a London B.A. without attending a university. He was an excellent teacher devoted to his profession. Of the five pupil teachers under him, three of us went to the university and the other two to technical colleges, and all went on to more or less distinguished careers.

There has been a great improvement in primary school education since the 1880s when I went to school, or even later when I was a teacher. In those days the education authorities were interested only in book learning. There was little or no regard for the physical well-being of the children. Though the children of the poor were probably as well educated as those of the wealthy in rudimentary subjects like reading, writing and arithmetic, they did not enjoy as good physical conditions. As late as the 1930s boys of fourteen years of age of the lower middle class were nearly three inches taller than those of the manual workers, and boys in wealthy families about five inches taller. In the industrial towns rickets and other evidence of malnutrition affected nearly half the children. The introduction of school cheap or free milk and school meals, together with the big rise in the standard of living of the lower income groups, enabled families to get a better diet, and there is now little difference between the health and physical well-being and dress of children of different income groups.

## CHAPTER 3

### GLASGOW UNIVERSITY: I—ARTS COURSE

AFTER four years as a pupil teacher I won a Queen's scholarship which took me to a teachers' training college and, as I had passed the university entrance examinations, my fees were paid for university classes, and I had won a bursary sufficient to pay for my lodgings. I attended Glasgow University for some classes and the teachers' training college for others, but the university education was the most important.

Life at the Scottish universities was hard for students in the nineteenth century. The majority came from lower middle-class or working-class families. At the beginning of the century it was a case of 'low living and high thinking'. The students took their bag of meal with them to their lodgings to enable them to economise in the food they needed to buy and in the middle of each term, on a Monday called Meal Monday, no classes were held so that the students could go home and have their meal pokes refilled. Glasgow University still has a mid-term Meal Monday holiday though nobody now takes oatmeal with them, and probably few of them eat porridge or oatcake.

Even in the late 1890s life was hard for many of the sons of the poor families. After a dinner I was attending of the Glasgow and Aberdeen University graduates in the north of England about 1930 a doctor came up to me and said, 'I doubt if you will remember me'. Though his face seemed familiar I could not remember his name or even where I had met him. He told me he had been a medical student in Glasgow at the same time as myself. He had worked in the pits on the night shift and attended his classes at the university during the day. It took him an extra two years to get through, but there he was now, in full evening dress, a highly successful medical practitioner.

Another case comes to my mind. Aberdeen University was giving an honorary degree to one of its graduates who had had a most distinguished career. A friend of mine, a member of the University Court, told me that he had invited the new honorary graduate—who had been a student at the university in his time-

to stay with him. He was a Highlander who had never forgotten his pious upbringing and always said Grace over his glass of whisky. When he was a student he had lived in an old beached trawler. He had brought his oatmeal with him from the croft and got fish for almost nothing in the famous Aberdeen fish market, so his lodgings cost him very little. In summer, when the arts classes did not meet, he went back home and worked on the farm. Now this man, a little past middle age, was receiving the highest honour the university could confer. It was a hard life for the students, and many succumbed. I remember Samson Gemmel, Professor of Clinical Medicine, the most cultured professor I have ever met, telling us of such struggles of the poor students which had so undermined their health that they got their university degree only to have it registered on their coffins.

This reminds me of another story. In a Highland village lived an old man, a crofter, who augmented his income by driving passengers, who came north for the shooting in the autumn, from the station to one or other of the shooting lodges. An Englishman got up on the front beside the old man and to make conversation asked him about his family. 'I have three sons,' he said, 'all good boys and doing well.' "They will be gamekeepers or gillies?" 'Oh no,' said the crofter, 'they are all in good jobs. My eldest son went to university and became a lawyer. He is now a judge. The second one went into the army. He did well too and is now a general.' "Oh," said the Englishman who thought the old man was pulling his leg, "and what about the youngest one?" 'He did well too,' said the old man, 'and he is now a minister in the government as Under Secretary of State for War.' "Do they ever come to see you?" asked the Englishman. 'Yes, they all come and spend their holidays at the croft. When they arrive they just put on old clothes and come out and help my wife and me with the work.' "But why do they allow you to earn your living on a croft and driving this bus?" 'Ah,' said he, 'would not exchange my way of life, which I enjoy, for the strenuous lives my boys lead.'

The main benefit I derived from my three years in the arts course was not so much from listening to lectures and swotting up the books set for examinations but from studying books which were not prescribed reading. Having been brought up in the fundamentals of religion my mind was groping for a wider outlook

which I did not get from the professor of philosophy whose lectures irritated me because I thought he talked and argued in a circle without getting down to an examination and discussion of available facts. I read non-prescribed books on agnosticism and on hypnotism and psychology. I was so interested that later, in a science course, I took experimental psychology as the main subject for a science degree.

My main criticism of the university at that time was that the hard work required to pass the examinations did not leave the students sufficient leisure to meet and discuss with others with a different social background, and read whatever books they were interested in without the depressing thought that they had to be learnt up for an examination. As an example of this—from the time I was a boy of fourteen my nose had been rubbed in Shakespeare's works. I had been forced to learn long passages by heart, to write essays, and to annotate. As a result I have never read a play by Shakespeare. With two editions on my shelves the very look of them raises unpleasant memories of examinations. On the other hand, being forbidden to read Burns I, like many others, read every one of his poems. Today, if one wanted to kill the world-wide anniversary of 25 January, the best way would be to make Burns' poems compulsory for examinations!

I got more permanent impressions of Glasgow, which have affected my whole life, by prowling round the city on Saturdays to see the tenement slums which, like every other industrial city in Britain, formed about half of the housing and were indescribably gloomy and filthy. Having been brought up in the country where almost all the people, even the poorest, lived in single houses with a front and back door and a garden, and where one could go out at night and see the moon and the stars, the thought of life in these slums was most depressing. One Saturday night I went up to see the Salt Market in the middle of the slums. I wandered round it till about ten o'clock when the pubs were emptying out crowds of drunken men, many of them spoiling for a fight. One scene which still sticks in my memory is of a woman lying dead drunk in the road, her head on the pavement and her skirts thrown up, with nobody taking the slightest notice of her.

On one or two Sunday mornings I went to the Free Breakfast Mission in a hall in the east end. There all the down-and-outs



could come in and have a big mug of coffee and a slice of bread and butter provided they were willing to sit through some hymn-singing and one or two speeches by fervent evangelistic laymen urging them to have their souls saved. These experiences gave me an intense hatred of unnecessary hunger and poverty and affected my subsequent life much more than any lectures I listened to on philosophy.

## CHAPTER 4

### BACK TO TEACHING

AS I HAD won a Queen's scholarship to the teachers' training college and the university, it was incumbent on me to teach for a short time to justify taking the scholarship. Immediately after graduating in 1902 I applied to the Glasgow School Board for a job and was given one in a school in the slums. The playground was a small area laid with concrete. The rooms were overcrowded, and the children were ill-clad. Looking back now, I realise that the majority of them were obviously suffering from malnutrition and some of them from actual hunger. Some came to school with no breakfast, and others with only tea and bread and butter. Going round between the seats one could see the lice crawling on their heads and on their clothing. We were supposed to teach them grammar, arithmetic and all the other subjects in the educational curriculum. I went home the first night feeling physically sick and very depressed. I had another look at the school the next day, and came to the conclusion that there was nothing I could do to relieve the misery of the poor children, so I sat down and sent in my resignation. I returned home to work in my father's business where I could make £3 a week instead of a little less than £2 a week which was the remuneration of a university graduate schoolteacher at that time. The work was much more enjoyable than trying to forcibly feed education down the throats of children who did not want it and received little or no benefit from it.

After three or four months working with my hands I thought it was time to go back to teaching for a bit to give some return for the scholarship, and was appointed to the Kyleshill School in Salt-coats about seven miles from where we lived, which meant I was able to stay at home. This was a school in the east end with children from the poorer part of the town. I was given the senior pupils aged from twelve to fourteen years. Nearly all the children came from poor homes and were compelled to start work as soon as they left school at fourteen, or earlier if they could get exemptions. As none of them was going to university or even a secondary

school there seemed little point in teaching them formal grammar, higher arithmetic and the other subjects needed for examinations. The more common sense view seemed to me to be to give them as pleasant a time in school as possible and not set them home lessons which could not be done properly since the only table in the whole house was the kitchen table.

Although these children were all from the lower income groups they were by no means inferior in mental ability to the children from better-off families. At one of the local teachers' meetings—which I seldom attended—I heard some disparaging remarks made about the poor school I was in, and wondered what could be done to show that these children were as clever as those in the other schools, including the fee-paying schools. I discovered a way out through an endowment which gave six bursaries to school children in the area. I picked out four of my cleverest boys, told them to send in their names for the bursary examination, and then kept them in after school hours for about half-an-hour for three weeks before the examination teaching them the subjects I should have been giving them if I had adhered to the curriculum. The boys obtained the first, second, fifth and sixth of the six places in the examination. This result gave an increased feeling of self-respect to the senior pupils and to the teachers in the school. It was obvious that the system of primary school education at that time lost the country the services of many potential first-class leaders and scientists from the poorer ranks of society.

As I was very fond of singing, a good deal of the time which should have been spent on academic subjects was devoted to chorus singing of Scottish songs which the children enjoyed. By this time, however, the school inspectors instead of coming once a year for a one-day examination had taken to popping in unexpectedly at any odd time. One day the inspector came in when we were singing and wanted to know what should be taught at that hour according to the curriculum. As a matter of fact I was not sure. I told him about the kind of homes the children came from and the sordid lives they lived with no prospect of any employment other than that of their fathers, and I said that I thought it was a good idea to give them as good a time as possible in their last two years at school. Fortunately the inspector, a decent fellow,

was himself fond of singing and got us to sing some of the songs we had learned. He left, saying that he had enjoyed the music but warning me to adhere to the curriculum or there might be trouble in his report on the school.

The inspector came another time just before Christmas. I had gathered together some old Christmas cards and other pictures from magazines and brought them to the school, and we were spending the forenoon pinning them to the walls with drawing pins when in walked the inspector. After another discussion with him he left, shaking his head, and again warning me to stick to the curriculum. On another visit, he was horrified when I told him that Burns' *Tam o'Shanter* was included in their English lesson and he suggested that I should replace it by *The Cottar's Saturday Night*. I replied that *The Cottar's Saturday Night* was a sentimental, untrue picture of a farm servant's life whereas *Tam o'Shanter* was a work of genius with hilarious good humour and much wisdom. Parts of it, which at their age the children might not quite understand, would be remembered with pleasure as they grew older.

At the time when I was a teacher there was no children's allowance for those up to sixteen and over if they attended school, and no unemployment benefit for those who could not find work; all the boys when they left school were either immediately in jobs or hunting for work. About forty years later, during the Second World War, when writing the book *Fighting for What* and remembering my experiences as a school teacher, I suggested that all youths, rich and poor alike, should be conscripted for from two to five years service, either in the army or in labour groups and compelled to work under discipline at whichever trade or occupation they wished to follow or, if they had no ideas themselves, they should be formed into a labour group which could be used on national projects like making the greatly needed wider roads, clearing up slums, laying out playing fields, and other work which did not interfere with the ordinary business of the country. This would have cleared the streets of the silly young would-be gangsters who at the age of puberty were anxious to assert their manhood but were given no opportunity of doing so except by becoming hooligans. It would also have benefited the well-to-do boys

destined to be managers or directors of companies. The two to five years of discipline, working with their hands side by side with boys from poorer homes, would have given them a better idea of the outlook of the work people, enabling them to improve the relationship between workers and management. That, however, was far too great an innovation to be adopted. To augment my meagre income (though the local board had given me a big increase in salary) I took on an evening class for which I was paid £20 for teaching two hours in the evening during the winter to young people who had left school. This turned out to be very useful to me because, after a rather dreary session trying to interest my pupils in history, politics and other more general subjects, some railway clerks came to me and asked if I would start a class for commercial subjects such as book-keeping and shorthand which they thought would be useful to them in getting promotion. I obtained permission from the school board to hold the class, but one evening the inspector walked in, and wanted to know what was being taught. When I told him that at the request of a number of young people we had started this class, he asked what certificates I held for teaching commercial subjects. None, I said, but as there would be no difficulty in my keeping a few lessons ahead of the class I thought I would get on very well. This time he was distinctly annoyed and replied, 'Your class will not be recognised for a grant, in which case the board will not be able to give you a fee for your work'. 'All right,' I answered. 'I am sure the board will allow me to teach these subjects provided I agree to relinquish the fee.' At this he relented and said that if I could pass the necessary examinations for the certificates he would get the class recognised so that I could have my £20. I got the books and settled down to work for the examinations. I managed to pass the one on book-keeping and accountancy with honours at a higher level than was needed for a teachers' certificate because I was much interested in the subject. The knowledge I gained has been of great use to me in after life, especially when I went into business after retiring, at sixty-five, from scientific research. The examination in shorthand was more irksome as I did not see any use for it but I managed to scrape through.

After failing to get any profitable occupation other than teaching, after about three years I decided to go back to the university and

study science in which I had always been interested. I was astonished, when the time came for me to leave, to receive a visit from the inspector who advised me to go on teaching in his area and develop my unorthodox methods. He assured me that there were good prospects in education. However, though I liked the children, I hated teaching them.

## CHAPTER 5

### GLASGOW UNIVERSITY: II—SCIENCE AND MEDICAL COURSE

MY SECOND course at Glasgow University was much more interesting and pleasant than the earlier three years course in classics. I was specially interested in biology, but unfortunately at that time it would have been exceedingly difficult to get a job with only a science degree in biology. I determined, therefore, to take a degree in medicine along with science, because a doctor can always get a job either on land or at sea as a ship's surgeon.

The first class I took was zoology where I learned about the origin of the species, and in the special class in anthropology I was taught about the evolution of the physical structure of man and the relation of his parts to those of other animals, birds, and fishes, all of which I found of fascinating interest. I still remember a book on the theory of the cell, which captured my imagination. It was not in the prescribed list of books for examination, and I was therefore able to read it with pleasure. Since then, the mystery of life has been a subject of unfailing interest to me. Had I been a man of independent means I would have devoted my life to the study of the mysterious interchanges in the living cell, the foundation of all life.

In my science and medical course there were three professors who made a special impression on me. Noel Paton, Professor of Physiology, believed in science for science's sake and had established an important research centre with about a dozen postgraduates. After completing my science degree I continued to do a little research when I was doing the clinical work for my medical degree. Possibly the most important thing he taught me was how to write a scientific paper. He said, 'Begin at the end. Write out first the conclusions you wish to draw, and then direct all the facts and arguments in a straight line towards the conclusions.'

Samson Gemmel, Professor of Clinical Medicine, was, I think, the man with the widest outlook on medical and world affairs generally that I ever met. He was an old man at the beginning of the present century, and must have graduated in medicine before

the new era introduced by Pasteur. He lectured mainly on infectious diseases, leaving the lectures on the other aspects of medicine to his younger assistants. He must have realised that the infectious diseases were on the way out, and usually in his lectures, after beginning to talk on some disease, he would wander off in reminiscences of medicine in his early days when all types of diseases were rampant in the industrial cities. He told us that the insurance companies were reluctant to accept a doctor for life insurance, unless he had had typhus fever and recovered from it. In those days, the Glasgow water supply from Loch Katrine had only recently been introduced, with water taps at different points in the city which were available to those who could pay five shillings for a key to the tap. Much of the water was still got from wells. There was one at the bottom of the eminence where there was an old cemetery. In describing conditions there, Professor Gemmel put it like this: 'The rain falls from heaven, percolates through the graves, comes out in the well at the bottom of the hill, and there the people were quite happily drinking a solution of their forefathers !'

At other times Professor Gemmel would wander off into Buckle's History of Civilisation or other such subjects and give off-the-cuff a profound and interesting talk on the wider aspects of social and political affairs. I learned more philosophy from him than from my official class in philosophy. He had a great sense of humour. One day he was just beginning his lecture when a tardy student came in late. Instead of sitting down quietly in the front seat, he stumped his way up the steps to the back. When he was nearing the top, Professor Gemmel looked up at him and said, 'That is right, the froth rises to the top'. The student, having reached his seat at the top of the room, said, 'Yes, sir, and the dregs fall to the bottom'. Instead of being angry at the impertinence the old boy joined with us all in the laughter.

The other professor who impressed me was Sir William Mac-Ewan, the famous surgeon. He was undoubtedly the most distinguished surgeon of his time though I considered he lacked the wide culture of Samson Gemmel. He was a tall man, a little over six feet, with steely blue eyes, and he used to amuse himself by bringing out a student in the clinical class and asking him to try to diagnose a case. The poor terrified student often made stupid



answers. One I remember was brought out to look at an old white-haired woman who had a tumour in her abdomen. He stood gazing at her for a long time, looked at the professor and said, 'Sir, I think she is pregnant'. The old woman and all the students roared with laughter but Sir William, without moving a muscle of his face, said 'Sit down, sir. I think your diagnosis is wrong.' I cannot remember ever having seen Sir William laugh.

In Moscow recently a medical man recalled to my memory an incident which he said had won me great respect in the clinical surgery class. I took that class in the last year of my medical course, and having had many classes and met many professors and had my degrees in arts and science, I had long passed the stage when those coming up to the university in their first year had such a reverence for the professors that, when they saw one, they felt like putting their foreheads in the dust and offering up a prayer! While the students huddled into the back seats in the hope that they would escape being hauled out on to the floor to be questioned, I sat in the front seat. We had a patient with a stone in the bladder and Sir William picked out a student and told him to write down on the board a list of the deposits that occur in the urine. The student took hold of a long stalk of chalk and began to write in small letters which nobody could read. The chalk broke, and the astonishment on his face when he looked at the small piece left in his fingers made me smile. Sir William said, 'I see you are amused, Mr. Orr. Perhaps you know.' By an extraordinary coincidence I had been taking tutorials in the physiology class for a lecturer who was off for a week and I had to deal with deposits in the urine. I had been forced to learn them off by heart so that I could write them out on the board without holding a book or a slip of paper in my hand. This would have aroused the derision of the students. I replied, 'Yes, Sir William, I know'. He looked round and said, 'Ah! Mr. Orr knows and he will come out and tell us about these deposits.' Having been a teacher for three years I knew how to write on the blackboard, so I took up a piece of chalk and wrote down the names of each of the known deposits, their chemical formula, and the shape of the crystals, if the deposits formed them. Having finished writing I drew a line underneath, said these are all the known deposits, laid down the chalk, and went back to my seat. Sir William didn't say a word. There was

another incident where I am afraid I had been rather rude so that when the session finished I wondered if Sir William would hold it against me when I went up for my finals. Instead of that, to my great relief and pleasure, when he came to my name in the list of marks he looked at me and said, 'I would like to see more of you, Mr Orr, after you graduate'. This seemed to me to be an invitation to apply for the post as his houseman which was considered a great honour.

Another teacher in medicine was Sir Robert Muir, Professor of Pathology and Bacteriology, who was probably the leading exponent of these subjects in his day. He placed his assistants in many of the university chairs of pathology both in Britain and the Dominions. He lived to be over ninety. Sir James Learmonth, with whom I had done some research when he was Professor of Surgery at Aberdeen University, was going out to Australia to give some lectures, and Sir Robert, late in his life, took the opportunity of going with him to visit his sister who was a few years older than himself. He took Sir James to see her. Looking at Robert filling his pipe with hands not quite steady she turned to Sir James and said, 'I'm afraid Robert is beginning to fail'.

As a further illustration of the financial difficulties of poor students I might record my own. When about halfway through my science and medical course I found that even with the help of bursaries I had won, my little savings from my meagre earnings as a teacher had disappeared. Of course my family could have seen me through, but at twenty-seven years of age I wanted to retain my independence. I had no spare time for outside work so I decided to dip my bucket into the economic stream and pull up some money. I bought a block of flats, went to my father's lawyer who was also his bank manager, and told him I had bought this property and that I wanted him to carry through the transfer and financial arrangements. 'How much money have you got?' said the

bank manager. 'About £5, I answered. 'How are you going to pay for the property?' he asked. 'That is quite simple,' I replied. 'I am opening an account with you and will take as an overdraft one-third of the purchase price. You will then arrange a mortgage for the remaining two-thirds.' He looked at me and said, 'Does your father know about this?' 'Oh yes,' I replied, 'he thinks it is a good deal.' The bank manager then agreed to put through the deal and

asked what I expected to get out of it. I replied, ‘After paying interest on the bank overdraft and on the mortgage I calculate that with careful management and factoring the property myself, I will get between £25 and £30 a year’. At that time, of course, that sum was worth about five times the same amount of money today. This, with what I already had, carried me through to the last year when I had increased my overdraft by about £50. These were days when one could arrange financial matters locally without filling up the forms required by banks today. When I graduated I sold the property at a little more than I paid for it.

Were it possible I would be glad to relive those five years studying science and medicine. Altogether I spent eight years at the university in different faculties, and if it had been possible to make a living at it would have stayed longer. Having been connected with universities since 1899 as a student, as a lecturer, professor, and then as Rector and later Chancellor of Glasgow University, I have lived in an academic atmosphere and taken an interest in the changes which have occurred. To realise what a change has taken place one must go back to the beginning of the nineteenth century. Till 1830 there were only two universities in England, Oxford and Cambridge, where the gentry and governing class were educated to take their part in public life. They were the training schools for the clergy of the Church of England and admission was limited to those who believed, or those who pretended to believe, in the doctrine of the Church. In Scotland on the other hand there had been four universities for nearly 500 years, entrance to which was not limited by any religious or political beliefs. Anyone who could pass the entrance examinations and pay the modest fee of about three guineas per class was able to get a university education.

About twenty-five years ago I suggested to Mr Walter Elliot, then Secretary of State for Scotland, that as education in the universities in Britain was still largely mediaeval and not adapted for the new era we were entering, the whole position should be reviewed to see what could be done to modernise them. As the whole of Britain might be too large a field to survey I suggested that the survey should be done for Scotland in the first place by a committee consisting of the Chancellors and Principals of the four Scottish Universities, and that the committee should send one or

two experts to America, the European countries and, even more important, to Russia and China where education was being developed on new lines. The suggestion, however, was not taken up, and since then the need for the rapid development and reorganisation of university education has become apparent. There is such a demand for highly trained men that the government now gives grants sufficient to pay for students' fees and expenses. The result has been a great increase in the number of students. In Glasgow, for example, the number has increased from about 1,500 when I was a student to 7,300, with equal increases in other universities, and there is, therefore, an urgent need for more universities. With such large numbers of students entrance examinations have been made more difficult. Any student who fails to make the grade after entrance must leave to make room for others. This has intensified studies for examinations and tends to produce specialisation on narrow lines.

If a new look were taken at education, it ought to be examined more from a biological than an academic point of view, consideration being given to the physical and mental evolution of the human being. Beginning as a single cell in its nine months before birth the embryo rehearses rapidly the millions of years of evolution from the first form of life on this planet. When it begins its individual separate existence it is at the stage of our primitive ancestors. In the first five or six years of its life it has to catch up with the great advance in the evolution of human society. Wordsworth talks of children at birth 'trailing clouds of glory coming from God who is their home'. As a matter of fact, they are born primitive human beings trailing the savagery and dirty habits of their ancestors with their primitive habits and emotions. The child has to be house-trained and disciplined to let it catch up with the advances human beings have made. This is a difficult time for a child when the most needful thing is to give it a sense of security and of being loved, allowing it as much freedom as possible for nature to proceed with its education. It is in these early years that character is formed. Not the least important advance in education would be to clear out the slums so that all children are born in decent and comfortable houses.

At about fourteen years of age when the ductless glands are changing, giving rise to new emotions, children should not be

forced to study long hours, subjected to worries and anxieties and then feel frustrated, with an inferiority complex, if they fail in their examinations. It might be better to allow them to leave school altogether or at least for a time, to let them mix with adults for a year or two after which they could be disciplined and adjusted to the new phase in their life. The time would not be lost as it would allow the children freedom to develop their imaginations, read whatever books they liked and think for themselves instead of having their minds filled with undigested information. After that temporary fallow period, returning to school they could easily attain the standard they would have reached if they had followed the conventional system of education.

Another suggestion worth considering is that, in this age of narrow specialisation, it would be advisable for science graduates to have, say, six months' lectures on the humanities, history, economics and other wider aspects of life, and for graduates in subjects like theology and law to have six months of lectures on the broad outlines of the physical and biological sciences and the effect of their impact on society. The lectures, given with no examinations, would leave them free to think instead of to learn. This would tend to produce men of wisdom with a knowledge beyond their specialised subjects.

If we are to make a rapid improvement in our education, however, the first thing needed is to pay higher salaries to schoolteachers, lecturers and professors. The chairman or manager of a big company can draw a salary of from £40,000 to £50,000 a year for managing the affairs of a single company. Surely schoolteachers, who are moulding the lives of children on whom the future depends, and university lecturers and professors should have, if not comparable salaries, at least about double what they have today. Decent salaries would attract the best brains to education, the most important profession.

## CHAPTER 6

### MEDICAL PRACTICE : SCIENTIFIC RESEARCH

WHEN THE final medical examinations were finished the students waited for a fortnight, torn between hopes and fears, until the results were published. I hoped and expected that I had passed, for I had never yet failed in an examination, though sometimes it must have been a near shave. To my astonishment I found that I was sixth from the top of about two hundred students, and I got my degree with commendation.

Having heard the glad news I returned to our flat, feeling rather depressed. The hard work of getting through two degrees in record time had been interesting and at times exciting, but now that I had finished, I realised that at last I had to leave the university and decide what I was going to do to make a living. My first concern was the overdraft of £50 remaining after I had sold my property. I found out which shipping company paid the highest salary to a ship's surgeon. It was the Elder Dempster Company whose ships sailed between Liverpool and West Africa known at that time as the 'White Man's Grave' because it had all the known and some unknown tropical diseases. I applied for a post and was appointed to the good ship Gando of about 5,000 tons, and set sail with a crew of eight white men and thirty or forty Negroes. We carried pots and pans, cotton cloth and other gee-gaws to be exchanged for mahogany logs, goat skins, and other products. I sailed in the Gando for about four months and thoroughly enjoyed the holiday. On the last voyage back to Liverpool I drew my money, paid off my overdraft and was out of debt, but undecided what to do next. This was solved for me by an invitation from the family doctor, Dr. Turner, of Saltcoats, to do a locum for him while he had a holiday, and for six weeks I sampled the life of a medical practitioner. At that time a general practitioner in Britain in a busy working-class practice had a hard life, as he still does today. I had to make ten to twenty visits a day with an after-lunch and an evening consulting hour except on Sundays when I often saw about a dozen people. That, with a call during the night

about once a week, often for midwifery cases, left little time for leisure or reading medical journals to keep up with advances being made in medicine. The fees charged were very low and some of the patients so poor that it was not worth while sending them an account, though they got as good attention as those who did pay. Half a crown for a visit and a shilling for treatment at the surgery left little over from the expense of running the practice to accumulate funds for retirement. Lloyd George's National Health Insurance scheme giving a fee for medical attention for working-class patients was a help, but even with that general practice was, except for school teaching, the worst paid profession.

Being more commercially minded than the good-hearted Doctor Turner, I put in bigger charges for the wealthier patients. Going over the books with him on his return he was a little annoyed at some of these. 'Here is a guinea for a single visit,' he remarked, and I replied, 'That was a night visit to a lawyer who only had a slight tummy upset. If he had been called out of his bed to make a will he would have charged at least three guineas, and a doctor's time is surely worth as much as a lawyer's.' 'Here is another, a guinea for a first visit and half a guinea for a second. Was that an urgent case?' asked the doctor. 'That was an urgent call,' I replied, 'and I had to get rid of the afternoon consulting hour patients as quickly as possible and rush off in answer to the urgent call. The lady of the house had got a splinter of wood in one of her fingers and could have pulled it out with her teeth. I thought they were having a joke at my expense so, carrying on the joke, I made a great fuss of pulling out the splinter, put a daub of iodine on the wound, a bandage on the finger, and her arm in a sling. I went back two days after when it was healed all right and ordered the arm in a sling for another day.' 'Did they pay the absurd bill!' asked the doctor. 'Yes,' I replied, 'and the woman's husband insisted on seeing me. Instead of protesting at the charge he thanked me profusely for my services and gave me a box of cigars as a present. You will find the box in your drawer in the consulting room. Smoke them and don't worry about my overcharging.' Some doctors, especially consultants, may have been commercially minded, but those I knew were more interested in their patients than in money-making. They were a fine class, as no doubt their successors of today are, devoted to their profession and

giving as good service to the poor from whom they expected no fee, as to the wealthy.

One of the cases of which I have a vivid recollection was of a man with kidney disease. Dr. Turner, when handing him over to my care, told me about his condition and prospects of survival which were poor. The first time I visited the man after the doctor had left, he said to me, 'I know what I need to make me better. I am tired of sloppy foods, all I need is a good rump steak and a bottle of beer.' At that time, of course, it was thought that in kidney diseases the thing to do was to cut down the protein intake in order to relieve the work of the kidneys in excreting protein waste products. After examining the blood and urine it was obvious there was nothing I could suggest any different from his doctor's treatment. The man and his wife were a very nice couple, so I got down my old clinical teacher from the Western Infirmary for a very small fee to see whether there was anything else we could prescribe. Having examined the case and the results of my examinations he said, 'The treatment is right and there is nothing further I can suggest'. When seeing him to the station I said, 'The man is clamouring for a rump steak and a bottle of beer. If he is going to die in any case, it is of little importance whether it is within two weeks or two months. I could let him have whatever he likes for as long as he lives.' 'A rump steak and beer would just about finish him,' he replied, 'but possibly your view is right.' When I went back to the house I told the patient's wife that the professor could not suggest anything else in the way of treatment. I said to her, 'Your husband will not get better. If he were my father I would let him have whatever he wanted to make his last days as pleasant as possible. He is clamouring for a rump steak and bottle of beer, and though it will almost certainly hasten his end it will make him happy, so I suggest that we should let him have what he wants.' Like a wise woman she agreed, so I went into the bedroom and told the patient, 'The professor said you are quite right, and your wife has gone down town to get rump steak and onions and a dozen beers'. To my astonishment, instead of finishing him off, there was a rapid improvement, so much so that he was able to get up out of bed and go back to his native village in Fife and play in a bowling tournament. He came home in the late autumn and died that winter, but he had had three or four



months to enjoy himself. Of course we now have the explanation for this temporary recovery. The man had kidney disease, but the sloppy food he was getting lacked the 'B' vitamins which affect the kidneys, so that in addition to the kidney disease he had a dietary deficiency. The rump steak and the beer, both rich in vitamin B, cured this deficiency and explained the improvement for the few months.

While I was doing the locum for Dr. Turner, I had the offer of a two-year Carnegie research scholarship in physiology. Dr. Turner was one of the finest men I have ever met, a man of abundant charity, beloved by all his patients both rich and poor, and a very able physician. In the First World War he handed over his practice to a locum and joined the forces, but to the sorrow of his many friends and patients, he died on active service. Although he had offered me a partnership with a guaranteed income of £500 a year, twice what an assistant usually got, I decided to accept the offer of the scholarship and do research under Professor Cathcart in Glasgow. Medical practice, I found, was harassing for me because I was always worried whether or not I had diagnosed the disease right. Further, in general practice one could not, except for a little while in the evening, indulge in pipe-smoking to which I was addicted. I therefore embarked on scientific research on which I spent the best thirty years of my life.

Though I never practised medicine again I never lost interest in the profession, especially in the history of medicine—once a doctor always a doctor. Though the instance of various preventable diseases varies in different countries the principles of therapeutic medicine are the same the world over and are welcomed by doctors in whatever country they go to. In various countries I have visited I always take the opportunity of seeing some of the hospitals and meeting some of the doctors.

The great advance in medicine in recent years is as striking as the advance in the physical sciences. A little over one hundred years ago, though advances had been made in the fundamental sciences of anatomy, physiology and pathology, therapeutic medicine was not much better than that practised in the great medical school of Alexandria over two thousand years ago. The barbers were the surgeons and did the bleeding, which, with purging, was widely practised. The barber's pole, still seen today, was

the indication of their profession; the red stripes indicated the blood, and the white stripes represented the clean bandages, and until recently there was a little brass bowl hanging from the end to catch the blood. Medical men were not very highly regarded. In many cases when they had to be called they had to enter by the tradesmen's entrance instead of through the front door. The people in those days, like the woman in the Scriptures, must have suffered many things at the hands of the physicians.

In the latter part of the nineteenth century much progress was made in the diagnosis of disease, but in the last few decades medicine has made great advances. The discovery that diseases such as rickets, pellagra and beriberi and some forms of malnutrition were due to deficiencies in vitamins, minerals and proteins in the diet, has brought about the almost complete elimination of these diseases in the industrialised countries where modern preventive medicine can be applied. The more recent discovery of antibiotics, new forms of which are continually coming out, has saved the lives of millions who would previously have died from pneumonia and other diseases. Not the least important advance has been in psychiatry which originated in Vienna with Freud, Adler and others. It is recognised that mental conditions such as worry, fear and anxiety can be the direct or contributory factor in the case of nearly all diseases and can even produce the symptoms of some diseases without any marked physical change in the tissues. Whereas sixty years ago a patient was treated for the disease, the doctor now treats not the disease but the patient, taking account not only of the physical signs and symptoms but of his whole background. Today, with the stresses and strains of modern life, about half the patients who go into hospital are suffering from psychological trauma and are treated accordingly.

We have erected great statues and monuments to soldiers and sailors for the victories they gained in wars in which so many millions were killed. It would be more reasonable to erect monuments to men like Pasteur, Jenner and Simpson, and to surgeons like Sir William McEwan and medical men who have saved many millions of lives by their discoveries and their application. Today more than half the people in the world still suffer from preventable diseases, which, with malnutrition, cause premature death. The expectation of life in the underdeveloped countries is only between

thirty and forty years compared with about seventy years in the wealthy industrialised countries where medical science has been applied.

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Fundamental research is a demanding mental mistress. Those engaged in it become lost in a narrow line of investigation which is so absorbing that they live in an 'ivory tower', knowing little and caring less, about the effect their investigations may have on the community. I, with my research scholarship to Glasgow University, lived in that rarified atmosphere for nearly two years. One can well understand the funny stories about absent-minded professors engaged in research, for indeed I became a little absentminded myself. Once when going to Edinburgh, I just missed the train and decided to spend the hour waiting for the next one in getting my hair cut. Sitting in the barber's chair, I was deep in thought trying to synthesise, to make sense of the data in an experiment I was engaged in. Suddenly I was awakened by the barber saying "Will you have a shave, sir?" "No," I said, "I want my hair cut. "But I've just done that, sir." Not wanting to be disturbed in my thought, I replied, 'Well, do it again', which he did and left me looking like an escaped convict. Such is often the mental abstraction of those deeply absorbed in some problem.

While scientists in Britain were making great contributions to the advance of knowledge, in Germany they were applying the knowledge to the development of their industries. As a result, by the end of the nineteenth century, Germany had drawn even with the great industrial developments which had taken place in England and had started to surpass them. I found that so many of the scientific papers which were important for me appeared in German journals that I decided to go to Hamburg to learn the language. After a fortnight's study of a German grammar from which I learnt some knowledge of syntax and a smattering of about five or six hundred common words, I was able to read German scientific literature in which most of the terms are almost identical with English.

To help apply scientific research to practical purposes, in 1906 Lloyd George, when Chancellor of the Exchequer, established the Development Commission from which arose the Agricultural

Research Council which was followed later by the Medical Research Council and the Department for Scientific and Industrial Research which enabled the government to take over and control the greater part of scientific research in the country and its application. It was the Agricultural Research Council which led me to go to Aberdeen in 1914 to start research in nutrition at the Rowett Institute.

## PART II

# The First World War 1914-18



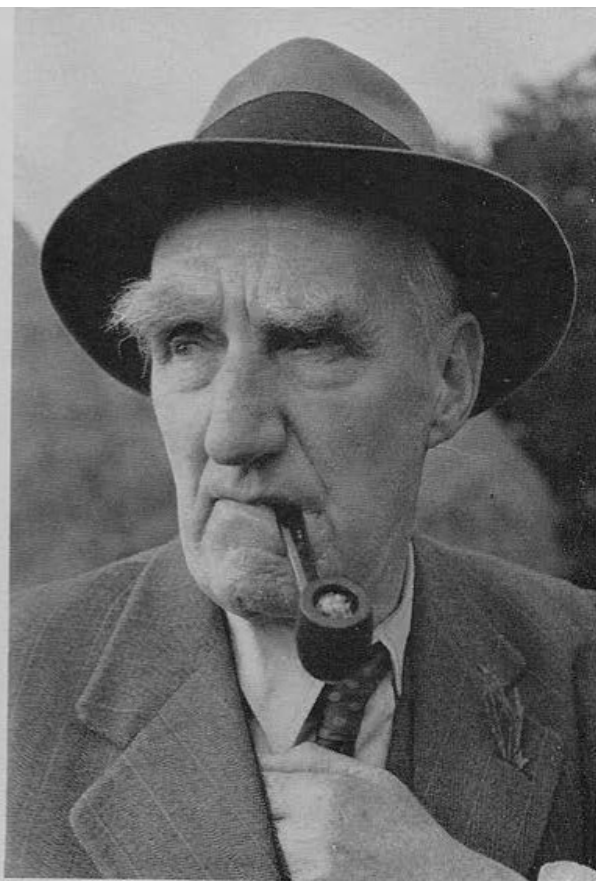


*Left: The author's father and mother. Below: The house in Kilmaurs*



*Right: Serving as an officer in the Royal Army Medical Corps. Below: In the Navy (photo: C. Vandyk Ltd)*





*Top left: Lady Boyd Orr, from a painting by Sir James Gunn, R.A. Top right: The author on his farm near Brechin (photo: Illustrated). Below: With the students of Glasgow University (photo: Associated Newspapers Ltd)*





## CHAPTER 7

### JOINING THE R.A.M.C.

MY FIRST interest in war was aroused by the Boer War in 1899. This little war caused as much concern and excitement as the First World War fifteen years later. It was thought that the British army would soon defeat the Boers but it did not turn out like that. The Boers were not like the untrained natives with primitive weapons whom we had fought in our little colonial battles. They were first-class shots with rifles and were led by men of great ability like Smuts, De Wet and Botha. However, they were finally defeated and within five years of their defeat were granted complete independence and a gift of £5,000,000 to help repair the ravages of the war. This was more than Kruger would have settled for before the war began. A permanent survival of the Boer War is the Boy Scout movement started by Baden Powell and now spread all over the world. The English are a generous people. Once the war was over Smuts and Botha were invited to London and given a great reception. Today a statue of General Smuts stands in front of the British Houses of Parliament.

My personal experience of soldiering began in the Glasgow University Officers Training Corps, which I joined when it was established in 1908. There was no doubt in our minds as to which country we were training to fight against. Kaiser Wilhelm had had the impertinence to send a cablegram to Kruger in the early part of the Boer War congratulating him on his victory over the British. Worse than that, Germany had embarked on a naval programme, which challenged Britain's supremacy of the seas, so it was the only country we thought we might be forced to fight—and we were right.

When war broke out in August 1914, I had started work with the Rowett Institute in Aberdeen and the circumstances which led to my joining the Institute are fully set out later. I describe here my experiences during the war although they do somewhat anticipate the narrative chronologically. It is, however, simpler to deal with this part of my life altogether and to return to my research work in the following section.

At the start of the war there was no conscription but an appeal for recruits. The young men, especially patriotic and adventurous university students, rushed to join the army. I went down to Glasgow to persuade Dr. Cathcart, who commanded the O.T.C., to get me a commission in the infantry, for which I had been trained. He refused to put my name forward, saying that I would be of more use at home. At thirty-four I was too old for a commission in the infantry. However, I was offered a commission in the Royal Army Medical Corps at fourteen shillings a day, or in the special civilian branch of the corps on a year to year basis at twenty-one shillings a day, but with no hope of promotion beyond the rank of captain. I chose the cash and waived the rank! I was ordered to report to Woolwich, and was given a list of the things I would need for overseas service. I rushed around trying to buy them all, including a sword, and arrived as ordered at the depot at Woolwich. Unfortunately I had been carrying out dietary experiments on myself and had lost weight and evidently I was not looking very well. The Officer in charge took one look at me and remarked that I didn't look fit enough to go to the front. I explained the cause of my temporary appearance, and assured him that in a fortnight or three weeks on a normal diet I would be all right. 'All right,' he said, 'I will attach you to the officer in charge of sanitation who will take you round the camps for a week or two, and then you can come back and see me about going overseas.'

The senior officer to whom I was attached at Woolwich was not very energetic and there was a lot of work to be done. About 100,000 men were huddled in barracks at Woolwich and in tents on the common. Three other divisions were training in various camps in the south-east of England. My superior Officer sent me to inspect some of these camps on my own. I wrote a strongly worded report on the bad conditions and on what was needed to improve matters, my superior officer read it over, signed it, and passed it to the A.D.M. S. (Assistant Director of Medical Service) who was in charge of the area. The A.D.M.S. sent for me, and with his finger on the report asked 'Who wrote this report?' Thinking that my superior officer might be in for trouble I said 'I wrote the report, sir, and gave it to my superior officer who signed it and passed it on to you'. 'Right,' he replied, 'you are now the sanitary officer

in charge, and your superior officer has been moved for service elsewhere.’ ‘I am sorry, sir,’ I replied, ‘but I was only put on this job for a fortnight or three weeks, and now I am about due to go to the front.’ To this his answer was: ‘Do you realise you are in the army and must do what you are ordered?’ Then, with a smile he added, ‘You will do far more for the war effort by staying and clearing up the mess in these temporary camps than by rushing off to the front. The war will last for four or five years at least, and if you do this job, I will see that you get to the front later.’

Sometimes it was difficult to get things done. An old colonel, who had served in the Boer War, was in charge of a building used for recruits for the Labour Corps. The latrines were in a filthy condition, and an inspection report was sent recommending that they should be cleaned. On a return visit to see if the recommendation had been carried out I found to my horror that the waterborne sewage system had been closed and latrine buckets put in. The contents of the buckets were taken away in farm carts. When I remonstrated with the colonel, he said what he had done was according to regulations, and to prove it showed me the instructions for sanitation used in the Boer War. He then ordered me out. As it was impossible to deal with him, I called on the Chief Medical Officer for Health in the district and explained to him the danger of an epidemic unless conditions were changed. I persuaded him to get the Member of Parliament to put down a written question to the Secretary for War, along with a copy of my report. Within a few days the War Office sent down some officers to hold an inquiry. The A.D.M.S. took me along to it with him and left me outside the office. After about half an hour, I was called in and the senior officer from the War Office asked me what I thought should be done. After I had spoken, the A.D.M.S. agreed, and I was given further powers to act. When we came out the A.D.M.S. asked me how I had managed to wangle the inquiry, but I refused to tell him, as I thought the less said about it the better. He might have resented my going over his head via an M.P. to the Secretary for War. This was a unique case. The great majority of the senior officers were courteous and helpful. In the few instances where there was reluctance to carry out hygienic improvements, a little tact and a show of great respect to high-ranking officers got my recommendations adopted without trouble.

## CHAPTER 8

### AT THE FRONT

AFTER about eighteen months as sanitary officer I managed to get to France. On arrival I was asked if I had any special qualifications such as being a good surgeon, bacteriologist, or anything else needed for hospital treatment. I replied that I had none—I just wanted to join an infantry unit at the front. There was no difficulty about that, and I was immediately ordered to report to the 1st Battalion of the Sherwood Foresters to relieve their medical officer who was going on leave. The battalion had recently returned from service abroad and was, I believe, in the last division completely officered by regulars. Owing to casualties, the others had many temporary officers. After I had been a week with the battalion the colonel asked me if I would stay on with them. I agreed, and served with them till 1918, when I resigned to join the Royal Navy.

There has already been so much written about the First World War that there is nothing I can add that would be worthwhile except my personal experiences illustrating what life was like for the troops in the front line. The battalions at the front were in the line for a few days at a time and then relieved to act as reserves about a couple of miles behind the line. When I joined the Foresters they were in reserve, so I decided to go up to the front line by myself to see what it was like. I set off; when I got to the end of the trenches everything seemed quiet, and instead of going into the trenches I continued to walk over the top. Suddenly I realised that somebody was shooting at me! The snipers on both sides were continually on the lookout for a shot at the enemy. When a bullet struck the earth quite near me I stopped being a brave man and popped into a trench. I had learned my first lesson—that survival at the front depended on constant vigilance to keep out of the way of dropping bombs or ‘Minnies’ or being a target for a German sharp-shooter.

The first big action I saw was an attack on the Vimy Ridge. Our battalion, next to one of the divisions attacking, was on the alert in case we were needed. The attack failed to capture the ridge, but the Germans did not break through, which meant our battalion

was only on the fringe of the fight but never actually engaged. I was eager to read the report of the battle. When *The Times* arrived from London there was a long report of a trench raid in which a few square yards of mud and a few German prisoners had been taken, but all it said about the Vimy Ridge action was that there was some activity on the Vimy Ridge. It had seemed to me from the number of men engaged in it to be a battle about as big as the Battle of Waterloo, but as it achieved nothing except a long list of casualties, the less said about it in the press the better. After that experience I lost faith in the press reports of the war, which were handed out to reporters at headquarters. All we knew about how the war was going on was what took place in the little sector of the front we happened to be on. Headquarters issued a bulletin, which was stuck up on the notice boards of the units. Sometimes it referred to actions of which the unit had first-hand experience and this was always very different from the official accounts. The men had no faith in them and referred to them as 'Comic Cuts', the name of a halfpenny children's paper now defunct. Since then I have been a little chary about accepting any government statement, in the present cold war, as being the whole truth.

The first big action we were engaged in was the Battle of the Somme, which began on 1 July 1916. Our division was timed to go in about the third or fourth day, but before the order came through our battalion was sent to an adjoining part of the front where an attack had been made on a ridge, but had failed to take the summit, which was all-important, as whichever side held it had a view of the movement of troops on the level ground below. Our battalion was ordered to take the summit but unfortunately the Germans had decided to throw in fresh troops to recover the lost ground and timed their attack a few minutes after ours. Our artillery shelled the German trenches, then over we went and jumped into them to find them packed with soldiers. We were driven out and followed into our trenches, then, in turn, we drove them back and re-took the German trench but were again driven back to our own lines. The trenches were packed so close with men that they could not use their arms and fought with their fists. I was hustled up and down the trench with my feet sometimes off the ground. As the artillery could not get word back quick enough to let them know

which trench to shell, we and the Germans were, at times, shelled by our own artillery.

In the end, both sides, after appalling slaughter, were back in their original trenches. Then with my aid-post staff and stretcher bearers, I had the task of getting the dead thrown over the sides and the wounded taken away. By the time a fresh battalion came in to relieve us I was so tired that I was sitting on the ground patching up the wounded. As the new battalion marched in an officer passing by me pulled out a big silver flask of port wine saying, 'You look completely done in. Take a swig of that.' I did, and he insisted I should take a second one. It was the first port I had ever tasted, and it has been my favourite wine ever since. When we got back to a temporary camp my clothes were so saturated with blood that they had to be burned. We went into action with eighteen officers and eight hundred men. When we paraded next morning we mustered only five officers and about two hundred men. The rest were dead or wounded.

Though we had lost so many men, we went into the Battle of the Somme about two days later. There were not sufficient officers, and I took off my R.A.M.C. badges and took command of the bombers. I handed over the command of the medical and stretcher bearer unit to my sergeant, who could do the job as well or better than I could. As the battalion moved up to the front, we were ordered to wait in a trench about fifty yards behind until we were called up. A terrific bombardment from the Germans broke out, with shells falling on the front line and behind it into the trench we were in. After waiting for a little I decided to go forward to see if the bombers were needed. I got across the fifty yards in safety and found the battalion only in support of the line, sheltering in groups in shell holes. The area they were in was being shelled by the Germans to prevent reinforcements getting to the front line. It looked as if it would be impossible for me to avoid being killed, so I thought I might as well die like an officer and a gentleman and I walked down the line of shell holes doing what I could for the wounded in each hole. I had reached about the end when it occurred to me that as I had escaped so far, I might survive; so instead of walking, I began to run between the shell holes. I jumped into the last one and behind me came my batman Ellis who had offered to go forward for me but had been ordered to

stay behind. After we had looked after the wounded and been told by the colonel that it was unlikely we would be called to go forward, Ellis and I decided to get back to our trench and prevent my sergeant from bringing up the bombers, as he had been told to do, if I did not get back. We set off to return over the mud churned up by the bombing, and arrived in safety.

At night, we were relieved by another division, and what was left of us moved back to the reserve trenches. As we got out of the trench, we were met by the grooms with the officers' chargers, but there were almost no officers to ride them, and they were led off by the grooms with the stirrups pulled up to the saddles. My officer friends were nearly all dead. While what was left of a first-class battalion travelled back I heard a piper of a Highland regiment which had suffered a like fate playing *The Flowers o' the Forest are a' wede away*'. I have never in my life felt so unutterably sad. My friends and comrades were nearly all gone.

In the winter of 1916-17 we were for a time in the trenches on the Somme. The area between the reserve trench and the front line was much pitted with deep shell holes, which filled up with liquid mud after rain. As there was no communication trench we had to go up and down at night on narrow duckboards. About three hours was the time it took to get into position in the front trench. It was an ordeal for men carrying sixty pounds of equipment plus the mud on their clothes. If they slipped off the duck-board on to the mud in the dark, they were liable to stumble into a shell hole, and with the weight of their equipment sink like a stone to the bottom where rescue was impossible. On one pitch black night we lost forty men drowned in shell holes.

My reason for describing what the P.B.I. (the poor bloody infantry) suffered on the Somme and in other battles is that their agony is not sufficiently recorded by the generals who have written their memoirs, nor by those who wrote the official account of the war. The staff who planned the attacks, living in peaceful billets in the safe rear area, seemed to have had little idea of what life in the trenches was like. They had planned for a breakthrough by the cavalry, including the Bengal Lancers, who, I presume, were to gallop through the break in the line made by the infantry, and with their sabres and lances kill the enemy artillerymen in the manner of the 'Gallant Six Hundred' who

charged the guns in the Crimean War. According to A. J. P. Taylor, the historian, the British casualties were 420,000 against 280,000 Germans on the British front—three British for two Germans. On the Somme perished men who had joined up with the ideal of fighting what they were told was ‘a war to end war’. I must confess I had no such ideals. I thought it was a war to destroy Germany who was fighting to replace Britain as the greatest world power. All that we won after these terrible losses was a few square miles of mud. Whatever our beliefs we were assured that God was on our side. Did not angels appear in the sky at the Battle of Mons? And Field Marshal Haig said, ‘I feel that every step in my plan has been taken with Divine help’. A sad reflection on the use of the name of the Almighty.

Such was the horror of the Battle of the Somme.

From the Somme we went to a rear area to train the recruits sent to bring the battalion up to strength, then on to Ypres. Both the British and the French had recruited coloured troops, though indeed these coloured races had little interest in which of the two sides won the war. The British had large numbers of Indian troops and a number of Chinese who were used as a labour corps. They suffered heavy losses. Of the five hundred Gurkhas who went into action at Ypres only forty-nine survived. They had served as ‘cannon fodder’. Though there were also heavy casualties in the bravely held Ypres salient, conditions were not nearly so bad as on the Somme. There were hard roads instead of mud, and the dugouts in the ramparts were drier and more comfortable than the trenches on the Somme.

In the spring of 1918, we were again taken out of the line to train for the Passchendaele battle. At Passchendaele the Sherwood Foresters got to their objective in good form and then settled down to be relieved for the next leap forward. While waiting, I became interested in a terrific fight going on at a place called ‘Stirling Castle’ on our war maps. I heard later that my younger brother James, a clergyman, who at the beginning of the war had got the young men of his congregation to accompany him as recruits and had been promoted to captain, was in command of the company which took and held ‘Stirling Castle’. Instead of leaving with his unit when it was relieved, he stayed to help the unit taking over and was killed. After the war when I commanded a university



O.T.C. an officer who was in the same battalion as my brother was seconded as my adjutant. He told me that Jimmy always led his company in prayer before going into action. He had been recommended for the Distinguished Service Order, higher than the Military Cross, but was killed before the award was announced. The only posthumous award is the Victoria Cross.

There is one pathetic incident I feel I must record. In an attack, a recruit, who had just come from England, panicked when the artillery bombardment began, threw away his rifle and bolted for the rear where he was arrested and sentenced to be shot for desertion. I was ordered to examine the man to see if he was fit to be shot. He was a married man, who had been a clerk in an office in London. He said that when he heard the roar of the artillery and saw the enemy shells coming down he got terrified, lost his head and ran. I made out a long report with a good few psychological terms, which I was sure the officers would not understand; the conclusion based on the evidence submitted to me was that at the time of the desertion the man was not in a state to be responsible for his actions, and shooting him would be not military justice but plain murder. The death sentence was changed to a long term of imprisonment and I was again ordered to report if he was fit to go to prison. It seemed to me that, the sentence of death having been promulgated as a warning against desertion, the court which tried him did not want to give him any severe punishment, so I reported again suggesting that a short term of field punishment in which he would be tied up all day to the wheel of a gun carriage, would fit the crime, and I proposed that the punishment might be carried out in his own unit where he would be under my supervision. That was decided and on the first day of the punishment I went up to him and told him to report sick. He was brought to the aid post and put to bed on a stretcher with orders to the aid post staff to give him a comfortable time. At the end of thirty days he had changed from a pitiable nervous wreck of a man to one in fairly good condition and was given a job looking after some mules in the transport lines. At the Passchendaele battle he led his mules back and forward through bombardments loaded with ammunition for the front line. In addition, he captured a pair of mules carrying ammunition to another battalion which had run off when the man leading them had been killed, and took them with their load back

to the front. The man who had been condemned to death for cowardice and desertion was awarded the Military Medal for outstanding bravery in action.

This incident illustrates two things worth remembering about the war: first, the sad plight of sedentary men of about thirty or older, pulled into the army by conscription and rushed out to the battle front after a short training; the other, the decency of English regular officers. I attended two or three courts-martial and I saw that if they could find any excuse for leniency the prisoner got off with the lightest punishment the court could give.

Another incident has a moral attached to it. Sir Ian Colquhoun, colonel of a Highland Regiment, arranged with the German officer in the opposite trench to have an armistice on Christmas Day. The German and British soldiers met on 'No Man's Land' between the trenches, shared the contents of Christmas parcels, and had a good time together. Sir Ian was arrested for fraternising with the enemy and condemned to be shot. He was the champion light-weight boxer of the army and the most popular Scottish officer. When the news got out that he was condemned for giving his men a good time on Christmas Day there was wild talk of a revolt in Sir Ian's regiment to rescue him. It would have been joined by all the Highland regiments. The High Command got alarmed, revoked the sentence, and returned Sir Ian to his command. The moral of this tale is that the soldiers on both sides who had no quarrel with each other and indeed were quite vague about what the war was about and why they were killing each other, would have been glad to fraternise, end the war and go home, had they not been restrained by propaganda of hate and strict military discipline.

While waiting behind the lines, we got rather tired of the army rations, even though supplemented by parcels usually of cakes and sweets. I made the cook of the headquarters mess go out to the deserted fields and gardens to gather vegetables which had reseeded themselves. With these and a chunk of bully beef he made Scotch broth. The broth from fresh vegetables was so much appreciated by the officers that I sent out a fatigue party to gather vegetables for the company cooks to make broth. Every day when the men came out of the line they had a mess tin of broth. In the spring there were a good many minor ailments about such as boils

and stomach upsets. We had none in our battalion and the A.D.M. S. sent for me demanding to know why I did not send any sick men to hospital. I told him that if there was any case that my sergeant could not cope with and return to duty within two days, the man was sent to hospital. If there were no Sherwood Foresters in hospital he could depend on it that there were no sick Sherwood Foresters. He came and inspected the men and found this was so, and then of course he wanted to know why it was that the men were so healthy. I could give no explanation, for at that time we knew nothing about vitamins and did not realise that it was the fresh vegetables, great chunks of them in the broth making it rich in vitamins, especially vitamin C, which prevented the boils and intestinal trouble prevalent in the army in the spring.

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As I wanted to try and keep up-to-date with scientific advances, ready for my return to the Rowett Institute (see page 88) I decided in 1918 to leave the army to join the navy, although I was sorry to leave my friends, especially Sergeant Warner, the chief medical orderly and a most efficient soldier. He liked his job, and when in the village in the rear area, he used to hold clinics for the French, treating them for their minor ailments with, I suppose, success, and pulling teeth at which he became an expert. I met him later when I became Chancellor of Glasgow University and was delighted to learn that he had been made a commissioned officer, had risen to the rank of major and was now the regular officer attached to the University Officers Training Corps.

I was even more sorry to leave Ellis my batman, a regular soldier who had been in the regiment for some years before the war began. He was one of the most intelligent men I ever met, with a good education. We were more like friends than officer and private. We had many interesting talks on religion, philosophy and politics, he being a socialist and I a conservative, but we both agreed in our views on what the government should do. He was a brave man who deserved the honours I got more than I did, but the colonel did not like him and refused to forward my recommendation for the Military Medal. I learned afterwards that under a new colonel he received a commission and was a captain commanding a company in the last year of the war. I tried to trace him

through the Regimental Office, through the War Office, and from one or two of the men of the regiment whom I met, but without success. He must have been killed.

The most amusing man I met was a little undersized recruit who reported sick at the aid post one morning after the battalion was on parade. As there was nothing the matter with him, I kept him behind to find out why he had reported sick, and found him very quick-witted and amusing. He was always in the hands of the 'red caps'—the Military Police. Once when we were marching, with the red caps and the prisoners in the rear, I heard occasional bursts of laughter, and got in behind to listen. The little fellow was talking away like a comedian on the stage. When the troops fell out at the side of the road for a ten-minute rest I went up to him and asked what he did in civilian life. 'I worked in a coal pit,' he said. 'You are rather small for a miner at the coal face. What did you do down the pit?' 'I cleaned the windows, sir,' he replied. A ripple of laughter went along the line of troops as the story of how the little comedian had scored off the M.O. was passed along. When my faithful Ellis got ten days leave, I took the boy on as a temporary batman. He did very well and begged to be kept on permanently, but I would not dismiss Ellis. When Ellis took over again he said to me, 'You must have had a lot of parcels from home'. I replied, 'There have been no parcels since you left'. 'Well,' he said, 'there is a great deal of new stuff in your kit.' When he brought it together for me to see there were several pairs of gloves, expensive leather leggings, binoculars, and underclothing. I sent for the little fellow and asked him where he had got them. He said, 'I wanted my officer to be the best dressed man in the regiment, so I scrounged them'. Ellis found out from the lad where he had pinched the things, and got them quietly returned to the batmen of the officers from whose billets they had been taken. The boy had a genius for creating laughter and would have done well in music hall if he had had the chance.

Most of us civilians who had joined up for the duration of the war had a rather poor but probably undeserved opinion of the staff officers who, having been trained for a totally different type of warfare, much of it based on the Boer War, found it difficult to adjust themselves to the new conditions. On the other hand, the civilian officers who were not hampered by any cut-and-dried

ideas, adjusted themselves quickly. The winning of the war was largely due to the fresh, adjustable minds of the temporary officers. As an illustration of this, when preparing for the Passchendaele battle, a group of medical officers in our division met unofficially to exchange ideas. One difficulty was that of getting water to the front line. Most of the men had nearly emptied their water bottles owing to their thirst after sweating on the march, carrying heavy loads in the sunshine. It was suggested that the stretcher bearers who were going up to the line with empty stretchers should take a full petrol can of water up with them, and when the water was finished the empty tin could be put on a stretcher going back with a wounded man until it reached the place where the wounded were transferred to the Red Cross vehicles taking them to hospital and where there was always a watering point. The refilled petrol cans could then come up again with the empty stretchers. When this was suggested to the Chief Medical Officer of the division he said it was impossible. We replied that water was the most urgently needed medical comfort, especially for wounded men who had lost blood, and could well be regarded as a Red Cross medical necessity. 'But,' said he, 'it is against the army regulations for water to be carried in an ambulance vehicle.' One of us, being a little impertinent, suggested that if the driver would stick it under the seat neither the Secretary of State for War nor the King would know anything about it. At this the Chief lost his temper and said, 'By God, sir, I will have you sent home'. There was a roar of laughter : there was nothing the medical officers wanted more than to get home!

That illustration is typical, I'm afraid, of the attitude of mind of many of the senior regular officers. It was not that they lacked courage. That same officer was continually around the front line exposing himself to danger which he was not called on to face. The regular officers, however, regarded the temporary officers as inferior because they were careless about the ceremonial drill. One of them, when asked about a civilian officer, replied, 'He is a first-class man in an engagement, but he will never make a good soldier'. Very few of the civilian officers were promoted beyond the rank of company officers or occasionally colonel in command of a battalion. Before I come to the end of my experiences in the trenches, I

wish to pay a tribute to the men of the Sherwood Foresters. They were mostly miners from Nottingham and Derbyshire. They were most efficient in adjusting themselves to the discomforts of the front line, and a very congenial, clubbable lot, helping each other in difficulties and sharing the parcels sent out from home. When we took prisoners they showed no great enmity. It was as if a cricket match had been played and won. They offered the prisoners either food or water or anything else they had and thought the prisoners needed. Ever since, when there are troubles and strikes with the miners, my sympathies have always been with the men.

When I resigned my commission as a civil surgeon to go to the navy, I got what I regarded at the time as the greatest compliment I had ever received. I had sent direct to the corps headquarters several reports for the improvement of the men's conditions, e.g. how to prevent trench feet. We had hardly a case in our battalion because I had refitted all the men with new boots, with two pairs of socks on their feet when they were fitted so that when wearing one pair they had free movement of their toes and some room to expand when the feet became a little swollen in the trenches. I got the men in relays of little groups to take off their boots, exercise their ankles, and rub their feet till the circulation was fully restored. Several other suggestions of this kind, which to my astonishment were nearly all carried out, had evidently impressed the staff officers of the corps, and when they heard that I was leaving the army to join the navy, a corps officer came down with a message from Lt-Gen. Hennaker offering me an infantry commission on the staff if I would give up the idea of leaving the army. Unfortunately it was too late; I wrote a courteous letter to General Hennaker thanking him, and regretting that it was now too late to change my plans.

I left the army with two decorations, the Military Cross won in the Battle of the Somme, and the Distinguished Service Order awarded after the Battle of Passchendaele. When I was awarded the Military Cross I refused to put up the ribbon, partly because the really brave men were dead with no medals, and partly because Ellis, my batman, who got no medal was a braver man than I was.

## CHAPTER 9

### IN THE ROYAL NAVY

I REPORTED to the naval hospital at Chatham and was greeted by the officer-in-charge with, 'I am glad to see you. I have no staff except recent graduates, and I see you are a B.Sc. and an M.D. with Honours. Will you take charge of either the surgical side or the medical side?' 'My qualifications on paper may be good enough,' I told him, 'but as a matter of fact I have never practised medicine except as a locum and would be hopelessly ill-equipped to become the chief surgeon or the chief clinician.' He thought I was shirking, so I decided that if I had to take one or other I would take the medical side. I was given two wards, one with patients with obscure diseases, which had not been diagnosed, and the other with patients on the highly dangerous list. I sent home for Ostler's Practice of Medicine—the standard book on the subject when I was a student—and worked about twelve hours a day examining the patients, consulting Ostler, and arriving at a diagnosis and treatment. With that intensive study and the help of the X-ray with which I screened nearly every patient, I learned a great deal about medicine.

After three months in the naval hospital, where I had begun to like the work, I was seconded to H.M.S. Furious the flagship of the 'hush-hush' cruisers. These were the first aeroplane carriers. Life aboard the flagship under Admiral Phillamore was very different from life in the trenches. Although the ship was always on the alert and ready for action, everyone behaved as if there was no war. The men dressed for dinner in the wardroom, the band played, and normal duties were performed like clockwork. The naval officers seemed to me to be much better educated than the army officers. Everyone had to be an efficient technician and good at his job. Some of the planes from the Furious went over Hamburg where they could see the people in the streets, but they never dropped any bombs. The ship carried a 15-inch gun, but when it was fired the recoil in the ship, which had no heavy armour plating and depended on its speed to escape bombing, was so great that

it had to be taken into Newcastle to have the gun removed. This took some weeks.

My duties as a junior naval surgeon were very light, so I had a good deal of time to play with some of the laboratory equipment I had taken on board with me, and to read the scientific journals published since the beginning of the war. One day I was called up to see the chief officer. He said they had a message to put me ashore at Hay's Wharf at Leith and an order for me to report at the Admiralty. There was a good deal of speculation on board about the possible reasons for this order. When I reached the Admiralty, however, I was relieved to find that it was not due to any crime or negligence I had committed. I was told that the Royal Society had applied for me to work on the food requirements of the army. At that time there was a dispute going on between the army and Mr J. R. Clynes, the Minister of Food, as to how much food should be devoted to the army and how much retained for the workers and civilian population. The Admiralty told me they had been informed that it would be necessary for me to have an army commission to carry out the work, but I would still be a naval officer, only on loan temporarily to the army.

From then till the end of the war, I was the only officer, apart from the King, who could appear in either a naval or military uniform. A weekly magazine depicted me in a cartoon with certain other officers. I was pictured in a 'hugger-mugger' uniform part army and part navy. Someone was good enough to send a copy of the magazine to my mother and the next time I visited her she brought it out and said, 'What an awful picture of you with a huge nose and a sticking out chin. Why did you not give them a photograph? It is terrible!' and then with a chuckle she added, 'But you know, it is like you!' From the beginning of 1918 to the end of the war I was engaged in this work, the results of which were published in a report issued by H.M. Stationery Office.

When the sirens sounded for the last time and London went hysterical on the declaration of the armistice, I immediately sent in my resignation in order to get off at the earliest possible date to my job with the Research Institute in Aberdeen. It was decided that the work I had been doing for the army should be continued, and a temporary officer--a lecturer in physiology at the London School of Medicine--was sent down for a few weeks to work with



me and take over what I had been doing. He used to come in in the morning with the Financial Times in his pocket. When I asked him why he, a lecturer in medical school, was bothered about stocks and shares he said, 'Ah, it is by these means I make my living, but I like to continue work in medical school for the companionship of well educated intellectuals'. He wanted me to dabble in stocks and shares too, but I told him I had no money to spare. He gave me the name of his brokers and then advised me what to buy and sell. I followed his advice, and at the end of the few weeks he was with me I had made £1,000 which came in very useful; indeed it was my only resources when I took my wife, and the daughter born to us during the war, up to Aberdeen.

## PART III

# The Rowett Institute 1914-45

## CHAPTER 10

### THE FOUNDATION AND THE FIRST YEARS

THE STORY goes back now to my research days in Glasgow. The Agricultural Research Council, which arose out of the Development Commission for rural industries set up in 1906 by Lloyd George, allocated a small grant to Aberdeen for research in animal nutrition. That grant was the real origin of what is now the Rowett Research Institute in Animal Nutrition of which I was appointed the first director.

An interesting thing about the history of the Institute is that its existence is due to a misunderstanding on my part. Neither the government departments concerned nor the local authority had any idea of establishing a research institute. It came about in this way. In 1913 after I had been working with him for about a year, Professor E. P. Cathcart, who at that time was lecturer in biochemistry at Glasgow University, told me one day that he had accepted an offer from the Joint Committee of the University of Aberdeen and the North of Scotland College of Agriculture which had just been formed, to be head of research in animal nutrition. He asked me to go with him. As I wanted to continue research for another two years to fit myself for a medical consultancy on diseases of malnutrition, I agreed to go for two years. A few weeks later, however, he told me he had accepted a professorship at London University and had cancelled his offer to go to Aberdeen. He told me that in resigning the post, he had strongly advised Sir George Adam Smith, the chairman of the committee, to try to get me to take it.

A few days later, I had a letter from the secretary of the committee telling me that if I wished to be a candidate for the post I should apply immediately. Under pressure from Dr. Cathcart I wrote a short perfunctory application, merely stating my three degrees and giving the title of two papers I had published. I then received an invitation to go to Aberdeen to be interviewed. Being situated in first-class laboratories within five minutes walk of the Western Infirmary where I could keep in touch with patients

suffering from malnutrition, I did not want to go to Aberdeen. However, again under pressure from Dr. Cathcart who said I had been working too hard and needed a day off, on a day in November 1913, I went to be interviewed.

At the interview I told the committee I had not the experience necessary to run what I imagined was a research institute, and returned to Glasgow thinking that would be the end of the matter. A few days later, to my astonishment, I was offered the post at a salary of £360 a year, which was three times as much as I would have got as a schoolteacher and nearly twice as much as an assistant in a medical practice. Further, it offered the prospect of continuing to do research, which I liked. The biggest inducement, however, was that with that salary I would be able to marry my boyhood sweetheart. I therefore accepted the post, though with some misgivings as to my ability to make a success of it. I asked to be allowed to defer going north for six months to enable me to complete the research on which I was engaged.

On 1 April—All Fools' Day !—1914, I arrived in Aberdeen, and enquired where the Nutrition Institute was. I was told there was no Institute. All they had was an approved scheme of research, a copy of which was given to me. The scheme provided for a total expenditure of £5,000 to be spent in building and equipping a wooden laboratory on the College of Agriculture's farm about five miles from Aberdeen. The recurrent expenditure was never to exceed £1,500 a year which, after maintenance, heating, lighting, cleaning materials and animals needed for research, would have left only about sufficient to pay for one senior worker and a couple of lab boys. Indeed this would have been sufficient for the research work proposed, the most interesting item of which, for the first year, was the analysis of turnips used for feeding cattle. Meantime I had been given temporary accommodation in a room in the basement of the University Department of Agriculture. The scheme was a shock for me. To leave the well-equipped laboratories in Glasgow, where about a dozen people were doing research, to work in isolation in a wooden laboratory in the wilds of Aberdeenshire, was a gloomy prospect which demanded an agonising re-appraisal.

My first impulse was to resign immediately and go back to Glasgow to finish my research scholarship. This, however, would

have been an insult to the joint committee, especially as they had allowed me to stay in Glasgow for five months after accepting the post. A more honourable course seemed to be to draw up a statement on what was needed for research in nutrition and to ask the committee to adopt it. If they refused, I could then ask to be allowed to resign. A statement was drawn up. Having had some training in drawing plans and estimating costs of buildings in my father's business, I was able to design plans and elevations of a building almost identical with the present main Institute building, except for the third attic floor added some years ago. The estimated cost with equipment was £50,000. I drew another plan of a granite building to cost about £5,000 (the money available) which could form a wing of the main building when it was erected, and I got the Master of Works of the University to draw up specifications and get tenders from contractors. The total of the lowest came to £5,030.

With these, I was ready for the joint committee, which met about a month after I arrived. The chairman, Sir George Adam Smith, asked me if I had anything to report. I replied that the scheme for research seemed to me to be hopelessly inadequate. I had prepared a statement of the kind of institute needed for modern research in nutrition, which would require a building, with equipment, costing about £50,000. Today this seems a modest sum. It was based on pre-First World War prices with which I was familiar. Since then, however, prices have risen about five times, so that it would be equivalent to nearly a quarter of a million pounds today. I suggested that the £5,000 available should be used for a granite instead of a wooden building. About £5,000 instead of £1,500 a year would be needed for annual recurring expenditure. The plans were laid on the table. I suggested that if the committee approved of this bigger scheme, the £5,000 capital grant would be used to build what would be a wing to the main building when it was erected, and an application submitted to the Development Commission for the necessary capital and recurrent grants for an institute.

The proposal for the bigger scheme was regarded as utterly impossible and so not seriously discussed. The suggestion to spend the £5,000 available for capital expenditure to erect a granite building instead of a wooden one was considered, and it was

remitted to two professors to inquire and report on whether the granite building could be built for 5,000. I saw the two professors separately and got them to agree that if the University Master of Works said it could be done, they would agree to the change from wood to granite.

At the next meeting of the joint committee I reported that offers for a granite instead of a wooden building had totalled £5,030 and I had asked the University Master of Works, who had drawn up the specifications, to accept the lowest offer and this had been done. The work was proceeding and the walls were up about six feet. This time the committee were somewhat annoyed. I had acted without their authority, but there was now nothing they could do about it.

Before the next meeting of the committee the 1914-18 war had begun. As I had trained in the Glasgow University Officers Training Corps for a commission in the infantry, I felt it my duty to join the army. I asked the chairman and the secretary of the committee for leave of absence and this was reluctantly given. The building contractors were told to finish building the walls, get the roof on and do nothing more till the end of the war.

On returning to Aberdeen in 1919 I got a copy of the latest application for a grant for research. It was made for the University Department of Agriculture, nutrition being included as one of three items, the other two being for soil research and a disease in bees—not a word about a Nutrition Institute. It seemed desirable that I should find out what the position of research on nutrition really was. On going over all the correspondence since 1912 when the Development Commission decided that some research on nutrition should be done in Aberdeen, and a Joint Committee of Management of the University and the North of Scotland College of Agriculture formed to supervise it, it seemed that all that was intended was some minor investigation in the University Department of Agriculture. Further, whatever was done had to be approved by the Professor of Agriculture in Cambridge who was to be the head of a Nutrition Research Institute to be set up in Cambridge. The idea of an independent Institute had been only a figment of my imagination. Still, there was the granite building on the college farm, almost ready for the benches and other equipment.

It seemed to me that the original little scheme had been prepared locally and the Development Commission, assuming that it was the limit of what the local authorities wanted, had approved it without going into it very deeply, but that they might consider favourably a big scheme which would enable research to be done in the most important new field being developed in the science of nutrition following the discovery of vitamins. The only thing to do was to drive on for the Institute. As the Professor of Agriculture at Cambridge, T. B. Wood, seemed to be the real authority, I went to see him. He did not appear to know or care much about the Aberdeen scheme, but when he examined my plan with its departments for biochemistry, physiology, and histology, and accommodation for experimental animals, he said it was what was needed, and that he would go with me to the Development Commission and do his utmost to get funds for it. The Development Commission were interested and gave the professor and me a sympathetic hearing; but they would not commit themselves to providing the necessary funds. Such a large sum not provided for in the original estimates of the commission needed Treasury sanction.

In the meantime the most important job was to get the new building on the college farm completed. We were able to get good laboratory equipment at a throw-away price from a temporary war laboratory which was being dismantled. When this arrived, the whole staff—Alfred Husband, a technical assistant who had been recommended to me by Sir William Bayliss who was retiring, James Ironside who was lab boy, typist and general factotum, and myself—set off from the room in the basement of Marischal College to our new building. There we were joined by Arthur Crichton, a graduate in both arts and science who had seen four years active service in France and been wounded. The first few weeks in the new building were spent, with the help of tradesmen, fitting in the laboratory equipment. During the lunch interval, we worked at making a road about thirty feet long to join the building with the adjoining farm road. When at least the laboratories were ready for research we stuck a piece of cardboard above the door with the legend 'The Institute for Research in Animal Nutrition'. We were now in business.

By mid-summer of 1919 the building was completed. Dr

William Taylor, a medical student of my year at Glasgow University, agreed to come up and do research for an M.D. thesis, and later Walter Elliot, M.P. for Lanarkshire, joined us. I had become acquainted with Walter and his life-long friend Osborne Mayor (James Bridie, the Scottish dramatist) at an O.T.C. camp in 1908. After the 1914-18 war, Walter had gone into Parliament. I happened to meet him one day in the Strand in London. We renewed our acquaintance and had a meal together. In addition to his medical education he had taken a degree in science and been interested in some of the research in the physiology department. I suggested that when Parliament was in recess and he was at a loose end, he should come and do research work with us, and he agreed to do so. With the addition of these two voluntary workers the scientific staff was increased by 100 per cent!

Dr. Taylor did research on the variations in the constituents of milk and the different stages of lactation which had a bearing on the breast feeding of infants. He did a first-class thesis for which he was awarded the degree of M.D. with commendation. Walter Elliot had been interested in nutrition experiments in the physiology department in the last year of his medical course. As we were working on calcium deficiency in pigs, we got him to do research on the calcium requirements of a pig. He had to feed it, clean it, and collect and analyse its excreta. He complained that he never thought he would be reduced to being a valet to a pig! The results of his investigations were valuable, and he wrote a thesis on the subject for which he was awarded a D.Sc. degree. He continued to do research with us when Parliament was in recess until he became Under Secretary of State for Scotland in 1926. Even after he became a member of the Cabinet he continued his interest in the Institute till I resigned in 1945. He was my closest friend. Every development of the Institute was discussed with him and I was equally interested in his political career.

We all worked with great enthusiasm to overcome the difficulties of the teething stage in the growth of the Institute. I was indeed fortunate to have such loyal colleagues who became close personal friends. They all did well afterwards. Alfred Husband gained a qualification as an associate of a chemical society and became head of the Research Department of the Ministry of Agriculture in Rhodesia; Arthur Crichton, despite financial



attractions offered in other jobs, devoted the best years of his life to the building up of the experimental farm; Walter Elliot became Minister of Agriculture; and Dr. Taylor was appointed to a senior post in public health in England. These and other pioneers should be reckoned among the founders of the Institute.

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In the late autumn of 1919 we were informed that the Development Commission would increase the grant for annual expenditure from the £1,500 in the original application to £4,000, but no mention was made of the capital grant of £50,000. This increase for running expenses enabled us to increase the staff. First to be taken on was Dr. Marion Richards, an excellent worker and a valuable addition to the staff.

In 1920 Dr. Plimmer, a well-known chemist working in University College, London, was appointed head of the biochemical department in Aberdeen. This turned out to be a most fortunate appointment. He had been a school-fellow of Mr. John Quiller Rowett who came to Aberdeen on business, when I was asked to lunch with him. He wanted to know what kind of work his friend had come to do. I told him of the Institute we were proposing to build, the kind of work that would be done, and the great benefits which I hoped would flow from the new science of nutrition. He informed me that he had made a lot of money during the war and wanted to devote a large part of it to something that would benefit the country, and offered me funds to enable the plan I had outlined to him to be carried through. At that time, however, I was under the impression that the Treasury would give the full grant, so, thanking him for his generous offer, I said I hoped it would not be needed, but if we were in need of additional funds I would be very glad to call upon him for help.

When the reply to our request for the £50,000 capital expenditure arrived, it was stated that the request was approved by the Agricultural Research Council, but subject to the provision that the local committee would be responsible for half of this sum. This was a serious setback, as I was certain that it would be impossible for the committee to raise that amount of money. However, remembering Mr Rowett's promise of financial help I wrote reminding him of his offer and I told him that we were now

forced to raise half of the capital expenditure for the new Institute; if he still had it in mind to give financial assistance I would be glad to come to London to meet him.

He invited me to lunch and, as soon as we sat down, asked, 'How much money do you need for the first year?' I replied £10,000, which would bring us another £10,000 from the Treasury, and with the £20,000 we could embark on the building of the new Institute. He said he would send a cheque the next day and hoped to be able to give a further £10,000 in the following year. When the sumptuous lunch was over I sent a telegram to William Murison, the treasurer of the joint committee, giving him the glad news.

Having got the assurance of the necessary money, I decided to reconsider the site for the new Institute. I believed it would be better to build on land which would belong to the Institute, instead of the College of Agriculture. I negotiated the purchase of a farm of about one hundred acres almost a mile nearer bus and rail transport to Aberdeen, and went off again to London to see if Mr. Rowett could give us an additional £2,000 to enable us to buy the farm. He agreed to do this. I wanted to have his contribution made under conditions which would give the Institute more freedom to engage in whatever research it chose, and he agreed that I should write out the conditions of the grant. I left him and went up to Fenchurch Street station to draft a letter for him to send, offering £2,000, not on a pound for pound basis but as the whole purchase price of the farm, on certain conditions, the most important being that if any work done at the Institute on animal nutrition was found to have a bearing on human nutrition, the Institute would be allowed to follow up this work. To my astonishment the Treasury agreed.

By September 1922 the buildings were nearly completed, and we had started work in some of the rooms when Sir George Adam Smith, our chairman, informed me that he had made arrangements for Queen Mary to come down and open the Institute when the Royal family was in residence at Balmoral in the autumn. We had a terrible rush to get things ready. Animals had to be brought for the animal houses, and the workmen who were still engaged on some of the laboratories had to be shut down in the basement so that everything would be ship-shape for the Royal visit. When

the Queen went round she remarked that the sheep in the pens were looking very tired—well they might, for they had been travelling through the night so as to arrive in time for the opening!

We had engaged on the staff Princess Scherbatoff, a White Russian, and put her in charge of the small animal house with a number of cages with rats in them. When the Queen looked at them she commented that she did not see much difference in the ones on special diets, but the Princess, who was very quick-witted, told her that of course these experiments were only beginning and there had not been time for the different diets to show their effects. The Queen then asked her to come aside and they had a private talk together. The Princess's father had been the Russian Minister in London and the Queen had recognised her. Everything went off well, and the Queen planted a copper beech tree in front of the Institute as a memorial of the visit.

After the ceremonial opening it was decided to publish the first report. It included a description and photographs of the buildings, an account of work in progress, and the titles of twenty-six papers already published. Mr. Rowett had one hundred numbered copies printed in scarlet and gold bindings for presentation to members of the governing body and other prominent friends of the Institute.

So the Institute was launched with a flourish, but we soon ran into financial difficulties; £20,000 had already been paid to the contractors, but as the work was nearing completion they naturally wanted further payment. We issued cheques until the overdraft at the bank reached £15,000, whereupon the bank manager wanted a statement of assets. I went to see him and explained that the new building and equipment of the Institute were of no economic value except for research, and a statement of assets would be worthless. The fact that it was backed by the University, with the Principal as chairman of the committee of management and the Secretary of Aberdeenshire County Council as convenor of the finance committee, and financed by the government, was surely sufficient guarantee. The bank manager, worried by the loss of overdrafts in the slump, was not impressed. To end the interview, I said we intended to issue further cheques for about £5,000 and asked him to let me know if they would be honoured. No word came, and the possibility of not being able to pay the tradesmen who were pressing us, nor the wages and salaries, became a nightmare. I was

going south to plead for help from the government department concerned, when Donald Gunn, our secretary, asked to be allowed to try the manager of a different bank whom he knew. To our great relief he came back with the news that the manager, after phoning the head office of his bank, said he would take the account with the overdraft and honour cheques for a further £5,000.

By various and devious methods a lot of money was obtained from private sources, and with additional grants from the Treasury the bank overdraft was wiped out in about two years—but what a miserable two years! There is nothing so degrading as hunting for money. Still, I had only myself to blame. I had embarked without authority of the government on a much more costly scheme than had been intended, and had to bear the brunt of my own rash actions. It would have been disastrous to allow the news that the Institute was in debt to become public, as organisations and individuals alike would feel reluctant to give any grants or contributions to an institution in financial difficulties, so we put a bold face on it and instead of looking depressed we held a reception in the Town and County Hall. Walter Elliot, who was now a Minister of State, came north for the reception along with some other important people. This, we hoped, would give the impression that the Institute was a flourishing concern.

There is no need to go into the methods whereby we were able to raise the funds to get ourselves out of debt. These amused some of the friends of the Institute and at a dinner in Strathcona Hall (referred to later) one of the speakers rose to his feet and said that he had heard of a man who had made his will leaving the residue of his estate to the Rowett Institute, but on learning of its drive to raise money had added a codicil to his will stating that if there was any dubiety about the cause of his death, his bequest to the Institute was to be cancelled! As a matter of fact I never asked for money from individuals except John Quiller Rowett who had previously offered it. The money was got from bodies like the Carnegie Trust and the Pilgrim Trust.

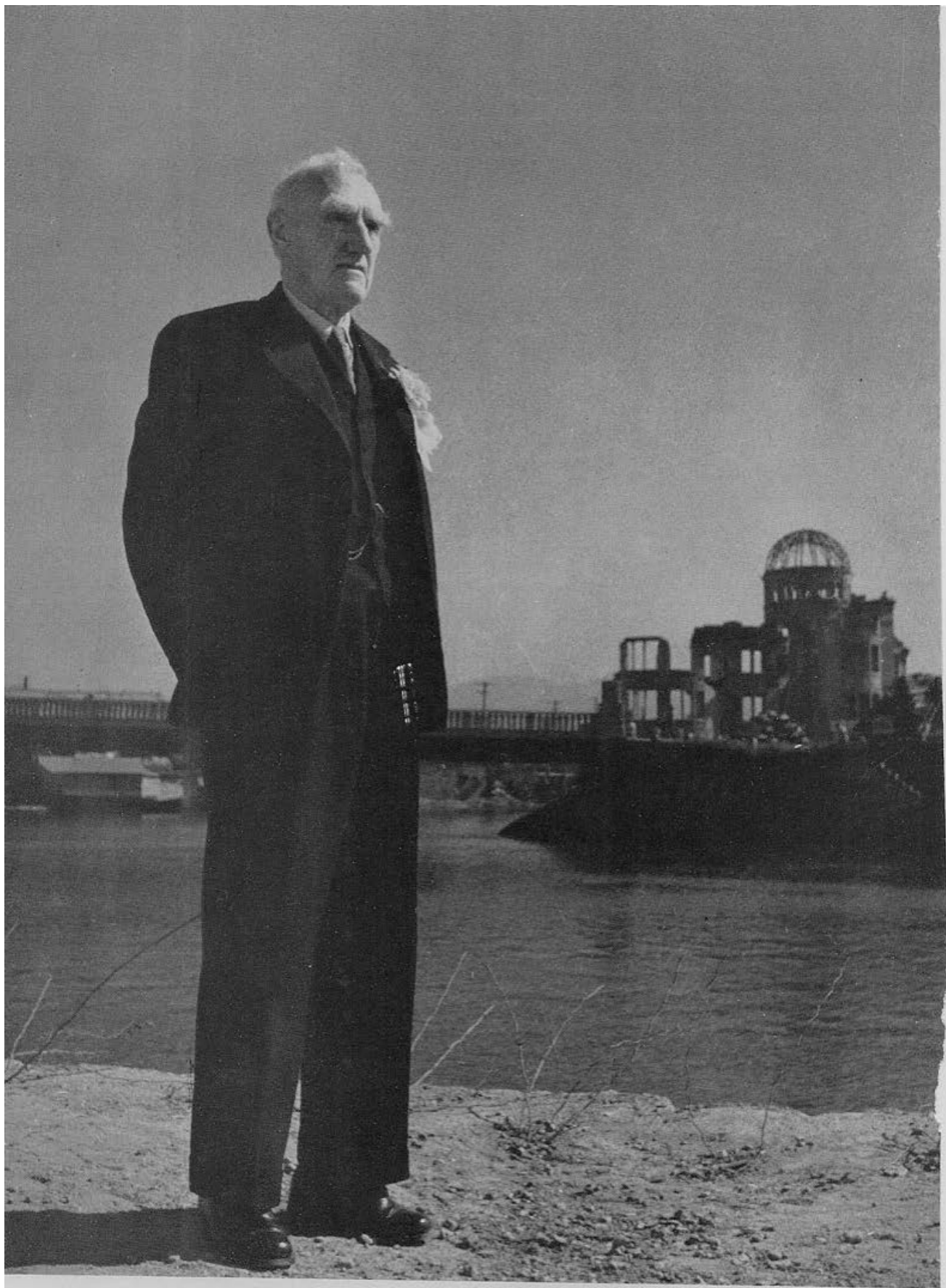
I still look back with bitter resentment at having to spend half my time in the humiliating job of hunting for money for the Institute. The Treasury made a great display of offering £50,000 for capital expenditure—provided half the money was raised from local resources. The research was supposed to be as important for

Britain as the navy. What would the First Lord of the Admiralty have thought if the Treasury had based a grant for a large sum for the navy on his going out to find half the money? The Joint Committee of the University and College of Agriculture were assumed to be the body to raise the money, but both were in urgent need of more funds for their own purposes. Further the idea of a research institute was mine and the responsibility mine.



*Top: With Lady Boyd Orr. Below: With two of the grandchildren  
(photo: Illustrated)*





Hiroshima 1952

## CHAPTER 11

### EXPANSION OF THE INSTITUTE THE REID LIBRARY

SOMETIME in 1923 Dr. Walter Reid, a senior partner in a firm of accountants, invited me to dinner at his house. After the excellent port had circulated and the gentlemen rose to join the ladies, my host asked me to wait behind a minute. 'Suppose someone gave you £5,000 for your Institute,' he said, 'what would you do with it?' I replied, 'I would use it to establish a library of which we are very much in need. The only books and journals we have are a few of my own which I brought to the Institute.' 'All right,' he said, 'I know a trust in Edinburgh which I am sure will give you £5,000.' I still remember the feeling of elation at the prospect of this library which came to my wife and me as we drove home from the dinner. Instead of spending the £5,000 on equipping the library, we thought it best to invest Dr. Reid's benefaction and hunt for funds from other sources for the building of a library. These we were able to get from a grant from the Carnegie Trust and some other organisations. A new building, 'The Reid Library' was built close to the Institute with its motto '*nisi dominus frustra*' carved in granite over the door. These are the first three words of a verse in the Vulgate 'Unless the Lord build the house they labour in vain who build it', a motto most appropriate for scientific research.

The new library with many journals containing papers on nutrition was an essential expansion of the Institute and in constant use, especially by junior workers. When they joined the staff they were first given a few months in the laboratories to get some idea of the work being done. They were then allotted a problem to work at, after which they were sent into the library to read and make short abstracts of the problem that they were to study from the various journals and papers which had been published. This gave them the necessary background; further, the abstracts were of great value to myself and the senior workers in preventing us from repeating work that had already been done.



A few years later, early in 1931, Sir George Julius from Australia, who had come to attend an Imperial Agricultural Conference in London, visited the Institute and on going through the library he picked out one of the books of collated abstracts, and when it was explained what it was, he exclaimed, 'This is what we need in Australia where we don't have all the scientific journals'. He took it to London with him and at the conference suggested that one of the most valuable works which the Imperial Agricultural Bureaux (see also page 133) could do would be to collect and publish extracts of the literature for the convenience of research institutes in different parts of the Empire.

As the collection of abstracts he was using as an illustration was from the Rowett Institute, I suggested that the first issue should be on animal nutrition. This was approved. The representative from Cambridge said he was sure that his university, if given the necessary funds, would undertake the laborious work of preparing and publishing abstracts on nutrition. I recollected that there had been some talk of the Institute co-operating with other institutions in considering a nutrition journal, and also that Dr. Walter Reid had offered a further £5,000 for any useful development of the Institute, so I stood up and said that the Reid Library at the Rowett Institute had it in mind to publish a journal on nutrition, that I hoped the first issue would be out in October (that was six months ahead) and that it would be easy to modify our idea to make it a journal of abstracts. Further, the Reid Library had £5,000 available to bear the inevitable loss on such a journal for the first two or three years. I suggested that the headquarters should be in Aberdeen, and to this the delegates agreed. When I went back north I got the senior staff together and told them I had committed the Institute to publishing nutrition abstracts and had promised the first volume in October. It was too big a job for a young Institute so I went to see Sir Walter Fletcher, secretary of the Medical Research Council which was supporting a great deal of work on nutrition and publishing typescript references to the work being done in other countries. I suggested to him that the M.R.C. might join up in this new publication, make a grant of £300 a year to support it, and appoint three members to a committee of management of nine for it. He agreed, and we appointed Dame Harriet Chick as one of the editors

along with J. J. R. MacLeod, F.R.S., Professor of Physiology at Aberdeen, whom we had induced to join the staff of the Rowett Institute as part-time paid consultant. This gave the journal access to the medical schools and the prestige it would never have had from the Rowett Institute alone. It also enabled us to get the M.R.C. workers to co-operate in doing abstracts. After seeing Walter Fletcher, I then went to see Sir David Chadwick, secretary to the Imperial Agricultural Bureau Council, and suggested to him that the Bureau should take some control of the journal and make a special grant of £300 a year to it, nominating three members to the committee of management. The fact that the M.R.C. had agreed to make a grant of £300 on condition that they nominated three members to the committee, induced him to agree. The committee, then, was made up of three members of the M.R.C., three from the Bureau Council, and three from the Rowett Institute.

The additional £600 a year, plus the £5,000 provided by Dr. Walter Reid enabled us to float the journal. The £5,000 was used to make up the loss in the first two years, by which time the list of subscribers had increased to an extent which made it self-supporting apart from the salaries of the Imperial Bureau staff who were now devoting most of their time to the publication.

At the end of six months of hectic work the first issue of *Nutrition Abstracts and Views* appeared in October 1931 as promised. Dr. Francis Kelly, who had been one of the team sent to do research in Kenya (see page 126) and had returned with the others when the research was terminated, was appointed head of the Bureau. He became sub-editor of the journal. To my great regret he left for a better paid job in London. He was succeeded by Dr. Isabella Leitch who had done first-class research work. She had a fine critical mind and a knowledge of several foreign languages. She became the working editor, relieving me of a lot of the work, and made a great success of the journal. I went over to America as a salesman to procure contributions for the journal, and persuaded an American scientist, Colonel Paul Howe, to join an international group of consultant editors which we had set up. The journal now has a circulation of about 2,000 and goes into nearly every institution in the world where research in nutrition is being done.

At the first meeting of the management committee Dr. Reid was

adopted as an additional member and made chairman. Having been warned of this honour, he asked his London office to arrange for the first meeting to be held in a hotel there, with a lunch to follow to which were invited a few leading scientists and two or three Ministers of State. Similar annual meetings with sumptuous lunches to follow continued till the outbreak of the Second World War, during which they were continued on a more modest scale. Dr. Reid's distinguished son, Colonel E. Birnie Reid, succeeded his father as chairman of the committee.

## DUTHIE EXPERIMENTAL FARM

When we were hunting for funds for a farm where experiments could be done on a big scale, Mr. John Duthie Webster, a wealthy man, the nephew of William Duthie the famous Shorthorn breeder, said to Mr. Murison the treasurer, that he was willing to give money to start an experimental farm. He was president of the Tarves Literary Society of which he was very proud, and he told me he would make a contribution provided I would give a lecture to his society. I agreed, and on the night of the lecture in March 1925 the village hall was filled to capacity. When I stood up, I said that Mr. Duthie Webster had generously offered to make a contribution to start an experimental farm at the Institute but had not quite decided how much he would give. I suggested that he might give £100 for every minute I spoke, and as he raised no objections, I told the audience I hoped they had all had good supper before they came for I was going to speak for a long, long time! After speaking for a little over an hour, when we were all beginning to feel a little bored, I said to the chairman, 'What about making it £10,000 and calling it a day?' He laughingly agreed. When I announced this to the gathering there were great cheers for Mr. Duthie Webster, and everybody, including myself, went home feeling very happy. We named the farm the 'Duthie Experimental Farm' in honour of Duthie Webster's uncle.

We bought or rented land of about five hundred acres and erected modern farm buildings adjusted to suit experiments, and then we again ran into financial difficulties because we decided to invest this £10,000 so that we could have the income to help support the practical experiments. The costs had exceeded the £ 10,000.

At one of the receptions we held in the Town and County Hall I was having a waltz with Mrs. Duthie Webster who was an excellent pianist and, like myself, very fond of dancing. When we had finished the dance she said to me, 'I hear that you don't have sufficient money for the experimental farm', and I replied that the farm had cost more than we had estimated. 'How much do you need?' she asked. 'We need £2,000 immediately,' I answered. She said, 'Don't worry, John will send you a cheque for that amount tomorrow'. And he did.

The experimental farm proved a great success, largely due to the ability of Arthur Crichton who was a glutton for work, with the assistance of his brother John, and later of William Thomson who succeeded him. We tried out what we thought would be a better method of feeding and management with one group of animals, and as a control fed another group by the commonly used methods. The success or failure of the test depended on whether or not the new method made a bigger profit. If it became obvious that it had failed to do this, the experiment would be stopped and work resumed again with the small experimental groups to find out why it was not a success.

By these means the experimental farm accumulated profits, but these were used merely to decrease the annual grant to the Institute. I suggested to the Agricultural Research Council that the Institute would do without the item in our yearly grant to defer the costs of large group experiments with animals, on condition that the governing body would be allowed to keep any profits made, which would be applied to further experiments. They wanted to know what would happen if, instead of making a profit there was a big loss, and how I was going to find the money for that. I replied that my governing body would guarantee to become responsible for meeting any loss. As a matter of fact, unknown to the council we had a considerable reserve in hand of large flocks and herds which did not appear in our financial statements. The council agreed to my suggestion and to strengthen our position the governing body allowed me to set up a small committee of five farmers whom I regarded as the most experienced and successful in the north-east as a consultative committee for the farm—James Keith of Pitmeddon, James Cruickshank of Cruden Bay, Jim Durno, Mr. Munro of Inverness and John Mackie of Coullie

(uncle of John Mackie, appointed Parliamentary Secretary to the Ministry of Agriculture in the 1964 Labour government, and George Mackie, a Liberal M.P.). These, in my opinion, were the ablest and the most prosperous farmers in the north-east of Scotland. I got this committee to meet about once every three months to go over the farm and examine the experiments being done, and then later I would sit down with Arthur Crichton to consider their valuable comments.

## STRATHCONA HOUSE

By 1927 the Institute had attained an international reputation and a number of post-graduate research students from the Dominions and foreign countries came to work at it. There was difficulty in finding suitable accommodation for them and other visitors so it was decided to build a residence. Plans were drawn and everything prepared except the funds! One day when I happened to be in London, Walter Elliot told me that Lord Strathcona, later Under Secretary for War, was coming to lunch with him and invited me to join them. During the lunch Walter asked how the residence was getting on and I replied that all was ready now except the first contributions to enable us to start building. Lord Strathcona wanted to know what the residence was for and on being informed that it was for the accommodation of visitors from different parts of the Empire, he offered to put £5,000 into the kitty to start it. As his was the biggest donation, the building was named 'Strathcona House'. The £5,000 was sufficient for us to accept contracts for about £20,000 and on 24 October 1929, Tom Johnston, Under Secretary of State for Scotland, cut the first turf and the building was begun.

By the autumn of 1930 the effects of the economic depression in America had spread throughout the world and research students who were coming to the Institute had their grants cancelled by their governments as part of their economy campaign, and we had the prospect of a building costing £20,000 being erected and standing empty. However, by collecting funds from other sources including the Pilgrim Trust, Carnegie Trust, and Aberdeen University which had priority for two of the rooms for members of its staff, and with contributions from some individuals including

Sir Leybourne Davidson, we were able, by the time the building was finished, to have it opened free of debt and all the rooms occupied. Lord Strathcona was appointed president of the committee formed to manage it. We could have had a grant from the Empire Marketing Board but we decided to have the house built and paid for without any government grants so that it would be entirely our own.

## ANNUAL DINNER OF COMMEMORATION OF FOUNDERS

To complete the story, one Saturday afternoon about 1932 when I was working in my room at the Institute Dr. Reid came in and said to me, 'This Institute, your experimental farm and your Strathcona House have nothing cultural or aesthetic about them. I have put £2,000 in the bank on deposit receipt in your name and mine, and with it we will put in stained glass windows in the Reid Library and Strathcona House.' Stained glass windows are all right in their place, but in buildings where you can look out of any of the windows and see the seasonal changes in the landscape which are much more beautiful than any stained glass, it seemed to me that the money could be put to better use. I asked him to consider using the money to endow an annual dinner to which we would invite members of the governing body, distinguished scientists, politicians from London, and former members of the staff of the Institute who had left to become professors at universities or take other better posts than they had held at the Institute. We could have a magnificent dinner with a leading speech by some distinguished person on the role of biological research in promoting human welfare. This did not appeal to Dr. Reid, and for a year, during which time we were frequently meeting, we used to have a little argument about it, stained glass windows versus annual dinner.

Then on another Saturday he came out to see me and, laying down a bundle of papers on my table, said, 'These are bonds on the Baltimore and Ohio Railway for your dinner. Now can I be allowed to put in stained glass windows?' I agreed that it was an excellent compromise. The first of the windows was put in before the first dinner, on 12 January 1933, and unveiled at the reception

on the following evening. Each window in Strathcona House bears the coat-of-arms of one of the Dominions or Colonies.

To inaugurate the annual dinner a trust document was drawn up which stated that at every dinner, there would be a principal guest who would make a speech and propose a toast to the four founders—John Quiller Rowett for the Institute, John Duthie Webster for the experimental farm, Dr. Reid for the library, and Lord Strathcona for Strathcona House. It was also arranged that for the junior staff for whom there would not be room at the dinner, there would be a reception on the following night to which would be invited as many guests as the house would hold, and at which they could dance and make merry.

Since Dr. Reid had reluctantly provided the money for the dinner, we went all out to make a success of it to show that his endowment had been worthwhile. We invited two Cabinet Ministers—Mr. Walter Elliot, Minister of Agriculture, and Sir Godfrey Collins, Secretary of State for Scotland—Sir Walter Fletcher, head of the Medical Research Council, Sir William Hardy, head of the Food Investigation Board at Cambridge, Sir William Haldane of the Development Commission, Sir Robert Greig, permanent secretary of the Scottish Department of Agriculture, and other chief officials, together with the Lord Provost of the city of Aberdeen. Dr. Walter Reid sat between Sir Walter Fletcher and Mr. Walter Elliot, and from photographs taken at his table he chose one of the three Walters to hang in his study. The dinner was presided over by Lord Strathcona, with Dr. Reid at the table at the other end of the room as croupier who proposed the loyal toast. The toast to the founders was made by Walter Elliot in a brilliant speech in which he said the joint committee had to bear with the exuberant idealism of Dr. Orr. They had to canalise and organise him. The speech was replied to by Lord Strathcona. Other speeches were made by Sir Godfrey Collins, Sir William Hardy, Sir Walter Fletcher and Mr. Frank MacDougall, Australian representative on the Empire Marketing Board.

After the dinner Dr. Reid came out to see me and said, 'Don't call the committee to deal with the accounts for the dinner. You and I will settle them ourselves', which meant that he paid all the accounts, and later made a further contribution to the funds for the dinner. The dinner had been such a success that it was decided

to publish a booklet bound in red and gold giving an account of it, with photographs of Strathcona House, a list of all those present and the table at which they had sat.

It is worth while noting that Walter Elliot, one of the best friends the Institute ever had, offered to provide carpets for the public rooms at Strathcona House or to stock the wine cellar, a huge vault under the buildings. Perhaps foolishly I chose the carpets. Today I would have asked him to lay down a copious supply of vintage port and other wines to mature for the annual dinner.

At the second dinner, Dr. Alan Fraser, a member of the staff who was the author of a number of books and other writings, asked to be allowed to sing a humorous skit he had written on the various activities of the Institute. He sang it to the tune of D'ye ken John Peel. The first and last verses went like this:

*D'ye ken John Orr  
With his medals and degrees,  
His knowledge of the Scriptures  
Of Nutrition and Disease.  
He's known throughout the Empire  
And sails all the seven seas  
In the cause of research in the morning.  
D'ye ken John Orr  
And his great Strathcona Hall,  
Where port wine and pianos  
Will make gentry of us all,  
And train our social manners  
So that we may pay a call  
On a bishop in his bath in the morning.*

This was reproduced next morning in the local daily paper, the Aberdeen Press and Journal, to the great amusement of my friends.

#### DAY TO DAY ADMINISTRATION, THE 'CONSTITUTION', THE HONOURS

Great credit for the success of the Institute is due to the governing body, which was made up of ten of the leading men in Aberdeen.



To facilitate their work I proposed they should form four committees for finance, land and buildings, the experimental farm, and the Reid Library, and suggested who should be the conveners. This enabled me to discuss with the convener the matters we wished to put through the committee and get him to propose whatever was wanted.

Donald Gunn, who had become secretary of the Rowett Institute in 1921, became a close personal friend. We went over the business before the meetings, and if we had anything big to put through affecting the whole Institute, we put it at the end of the agenda after a lot of trivial matters. Towards the end of the meeting, nearing one o'clock, everybody was keen to get away; then Mr. Gunn knew at a sign from me whether to bring up the big item. I would put it forward in very general and nebulous terms, and usually it was agreed to without a discussion. It was to my great regret when Donald Gunn, who was a highly qualified lawyer, left to become the town clerk of the city of Aberdeen.

There was some pressure brought to bear on me to arrange for a constitution to be drawn up for the Rowett Institute. I was much against this, as I did not want the dead hand of the past affecting decisions on the future. However, I agreed and suggested that I should discuss the proposed constitution with an eminent lawyer I knew. After going over all the funds of the Institute, he wanted to know how it was that the endowments we had got for the Institute and the Reid Library had been invested instead of being used to establish them. My answer was that 'no objection can be raised to any arrangement to which you can get the Treasury to agree'. After listening to my arguments, he agreed that it would be premature to draw up a constitution. Without it the committee would have freedom to develop in accordance with new circumstances which might arise from time to time. I put the first draft of the constitution into the waste paper basket.

\* \* \*

In 1932 I was elected a Fellow of the Royal Society, the most exclusive scientific body in the world. No honour since has given me so much pleasure. It showed that the Rowett Institute was recognised as one of the great research centres of the world and it set the seal of success on the long struggle to establish it.

Aberdeen pays high regard to scientific achievements. Lord Provost Rust and Mr. Donald Gunn, the Town Clerk, formerly the secretary of the Institute, came over to the Institute to give me the congratulations of the city. Some friends of the Institute organised a dinner in my honour. Dr. Walter Reid, who had been such a good friend to us, had in the same year been given the honorary degree of LI.D. by the University and I suggested that the dinner should be for both of us. This was agreed to. It was attended by about three hundred of the leading citizens of Aberdeen, and by the staff of the Institute. Walter Elliot came up from London for it and it was a memorable occasion. In 1935, in recognition of the work of the Institute, I was offered a knighthood.

## CHAPTER 12

### RESEARCH WORK AT THE INSTITUTE AND WITH OUTSIDE ASSOCIATIONS

IT is not worth while giving a lengthy account of the research work. The published papers were included in volumes of collected papers published periodically. The main interest is the contact our research brought about with other research institutes. Even the collected papers were mainly propaganda, for the Institute was struggling to create prestige for itself and get recognised as an important research centre.

The establishment of the Institute coincided roughly with the discovery of vitamins and the newer knowledge of nutrition. At first, when a certain food was found to improve health, the improvement was regarded as being due entirely to its vitamin content. In animal husbandry, the discovery of vitamins began to be exploited and commercialised. As the Rowett Institute was working mainly with deficiency diseases on farm animals Professor T. B. Wood of Cambridge asked me to write a paper dealing with the extravagant claims which were being made. I wrote a paper showing that the improvement attributed to an unknown vitamin in some experiments might be correlated with the mineral content of the added foodstuff! This brought the Institute into conflict with some of the vitamin work promoted by the Medical Research Council. Sir Walter Fletcher, the secretary, was justifiably annoyed that an unknown scientist in an unknown institute in the north of Scotland should have the presumption to criticise the work of the well-known institutions and he made some scathing remarks about the Rowett Institute in the draft of his annual report. Lord Balfour who, as President of the Council, was responsible for research work in national institutions suggested to Sir Walter Fletcher that they should ask Sir Frederick Gowland Hopkins to go up to the Rowett Institute to examine the work being done there. Lord Balfour had become very interested in our work and invited me to Whittingehame, his ancestral home in Scotland, to discuss it. A few days before his death I was asked to come to London to see him. Much to the annoyance of his

nurses, he kept me for nearly half an hour asking about the work and the general development in animal and human nutrition and the effect of the advances which were being made.

Sir Frederick Hopkins came up to the Institute and after spending the day with us, he told me that our criticism was right; the importance of the mineral elements had been ignored, and he advised me to concentrate on mineral requirements. Sir Walter Fletcher then invited me to the Athenaeum Club where we had a friendly discussion when it was made clear that we at the Rowett Institute were dealing with animals whose natural foodstuffs were rich in vitamins whereas the research of the Medical Research Council was concerned with sophisticated human foodstuffs most of which were poor in vitamins. For example the white flour used for human food had no vitamins whereas the bran which went to feed animals was rich in vitamins. Sir Walter then decided to set up a new Medical Research Council nutrition committee and asked me to become a member. This proved of very great value to the Institute, because when planning new research work, I was able to get the advice of the leaders in nutrition research work like Sir Frederick Gowland Hopkins, Dame Harriet Chick and others. Sir Walter, for whom I developed a great admiration, became a close friend of the Institute. He attended our Strathcona dinner and helped our work financially and otherwise.

Another line of work, which brought us into contact with other institutions, was on the mineral content of pastures whose value had formerly been established mainly by the botanical species which indeed gave a fairly good indication of their mineral content. As a number of diseases occurred in animals grazing on pastures, we made a botanical analysis of pastures collected from Sweden to the Falkland Islands and correlated their mineral content with the incidence of the good pastures free from disease and the poor pastures which showed mineral deficiencies. This work spread to other countries and I was asked to collect all the available information on it. This I did and published in a book *Minerals in Pastures* which was soon sold out. After this book had been published it occurred to me that there might be some information about mineral deficiency in early publications, so I got Princess Sherbatoff, who read several languages, to go over all the available old journals. We found that what we considered a new discovery

was known a hundred years previously in Sweden and France, and indeed in the early journals of the Highland Agricultural Society written mainly by clergymen who had taken a great interest in agriculture in the early nineteenth century. The collection of all this information was published by H.M. Stationery Office. In a discussion with Sir Thomas Middleton of the Agricultural Research Council I was bewailing the fact that we had spent £5,000 on investigations the results of which we might have anticipated by an examination of the literature which contained the general principles but under obsolete terms, for example, references to 'earthy matter' instead of 'mineral matter'. "Do not worry," he said, 'if you had not done the research work you would never have taken the trouble to read the old publications or to have understood them if you did.'

Looking back now it seems to me that whatever little advances we thought we had made would have been made by other institutions working on the same lines, especially by American institutions and by scientists like Professor A. V. McCallum of Baltimore and Professor Sherman of Columbia University and others with whom I became closely associated in the exchange of ideas about research.

## EMPIRE MARKETING BOARD AND RESEARCH GRANTS COMMITTEE

The research on human and animal nutrition, growing and expanding all the time, brought the Institute into association with a number of government-sponsored or other semi-official organisations. One of these was the Empire Marketing Board with its Research Grants Committee with which the Institute was closely connected so long as the Committee existed. The Empire Marketing Board, established in 1925, arose out of a promise by Mr. Stanley Baldwin to bring in Imperial Preference, but there was so much hostility to this policy that he was forced to withdraw it, and instead he arranged for a grant of £2,000,000 per annum to be made to an Empire Marketing Board to increase food production and the import of food from the Dominions and Colonies. Out of this amount £250,000 was set aside for research. At that

time, this seemed an enormous sum for research. The three leading members on the executive committee were Walter Elliot, the only one who had actually done research in this subject, Frank MacDougall, who had kept in close touch with the work of the Institute, and Mr William Ormsby Gore, later Lord Harlech, Under Secretary for the Colonies. Sir Stephen Talents was its most efficient secretary.

The Research Grants Committee was set up in 1926. I was frequently called in for consultation on grants for research in nutrition. The first grant with which I was concerned was one to report on the possibility of developing agriculture in Palestine. Sir John Russell of the Rothamstead Research Station reported on arable farming. I reported on animal husbandry. An account of the most interesting visit to Palestine is given on page 127. Probably the most important grant was one of £5,000 made to the Rowett Institute for a demonstration of the nutritive value of milk (see page 114).

Work on these projects brought the Institute into close contact with many of the leading research workers on food production and human nutrition in the Empire. Many of them visited the Institute and stayed for a few days, while others I met when on visits to different parts of the Dominions. I was able to promote requests for grants, and an example of this was one made by Dr. Richardson of the Waite Institute in Australia. When staying with me while on a visit to the Rowett Institute he told me of the difficulty he had in procuring funds to get the Waite Institute fully equipped. With my experience of the Rowett Institute, I had the greatest sympathy for him in his difficulty and suggested he should apply for a grant from the Imperial Marketing Board Research Grants Committee. I went down to London with him, and in the Scottish Office we drafted an application and sent it in to the secretary of the Committee. A few days later a copy of the application was sent on to me asking for my comments; not surprisingly I commended it for favourable consideration. Two years later, when in Australia, I was taken to see the Waite Institute. Before going in, Dr. Richardson pointed to the buildings and told the rest of our party what had been done to get the grant needed to complete them.

The Research Committee of the Empire Marketing Board used to call up leading scientists to get their views on what new lines

of research should be financed. The scientists, however, did not feel at their ease meeting politicians in Whitehall, and were reluctant to make suggestions, until Walter Elliot had the bright idea of inviting them to dinner instead of to a meeting in a government building. After an excellent dinner, the scientists opened up over the port, let their imaginations run free, and put forward many brilliant suggestions. A shorthand typist at a side table took extensive notes of what was said, then next day the E.M.B. sub-committee went over all the suggestions, and picked out what they thought would be practicable. They then invited leading scientists on the subjects they had selected to work them out in greater detail and then arranged for the giving of grants to scientific organisations to carry them out. This method of 'discussing it drunk and then considering it sober', as Walter Elliot put it, worked out very well.

The grants made from the central authority in London to different parts of the Empire on the advice of consultants called in by the Board, brought together the leading scientists from the Dominions and Colonies. These were the men whom their own governments called upon for advice, so that these meetings were of great importance in giving the different parts of the Empire at least one common object—to increase production and further inter-Imperial trade. The Treasury officials did not like any grants being made without the over-ruling authority of its officials, and in 1933 I was called to London to meet a group of civil servants who had been set up to enquire into the value of the work of the Research Grants Committee. I argued a whole forenoon pleading that, apart from the great impetus it had given to agriculture and other forms of research of great benefit to the Empire, the fact that it brought together leaders in research from Britain and the Dominions helped to bind the Empire together. However, it was decided to abolish the Committee. Its abolition was a shortsighted act.

## AGRICULTURAL MARKETING BOARDS

In the 1930s, owing to large-scale unemployment and the increasing number of families who, through poverty, were unable to purchase the more expensive foods necessary for health, there was a surplus of food which depressed prices, forcing many farmers to sell out for whatever price they could get. In Scotland tenants could not be

found for the farms thus left empty. The Ministry of Agriculture brought out plans for giving producers' boards powers to fix the prices of farm products and limit production to the estimated amount marketable, provided the majority of farmers were willing to join. This gave different branches of the industry the powers of a monopoly since imports were restricted to maintain the level of home-produced foods. I was against these boards because they meant dearer food for the poorer half of the population who were already unable to purchase sufficient for health. I predicted to the Minister of Agriculture that the first of them, the Pig and Bacon Marketing Board, would prove unworkable and would break down, which it did. In any case what it meant was that there would be less bacon imported from Denmark, and in return we would send them less coal, with resulting increased unemployment in both countries. Sir Harold Howett, a chartered accountant, was called in to make the Pig Board workable.

The Milk Marketing Board also proved to be unworkable. The increased price offered to dairy farmers brought in to the liquid-milk market milk which had formerly been retained at the farms and made into the much less profitable butter and cheese. The Milk Board was drowned in its own milk, and its income was so reduced that it was on the verge of bankruptcy. I was appointed a member of the Milk Board's re-organising committee, and I pleaded for a milk plan to increase milk production which would not only be for the benefit of producers but would also mean a great improvement in health of the poorest class. I was, however, in a minority of one, the other members being men suggested by the Ministry of Agriculture. I had been appointed on the insistence of Walter Elliot who was Minister for Agriculture.

I considered putting in a strong minority report, but recognising that if I did so, dairy farmers might have their monthly cheque delayed and it would have greatly embarrassed the Minister, I merely put in a note at the end of the report pointing out what the Board should do to restore prosperity to the dairy industry and increase milk consumption amongst the poorer classes. David Lubbock, who was acting as my private secretary, thought that I had got cold feet! However, it turned out all right in the end because the government was recommended to give the Board £5,000,000 to relieve its financial difficulty, but of this sum



£1,000,000 was to be devoted to propaganda to increase milk consumption to get rid of the unmarketable surplus. This was agreed to, and a committee was set up consisting of Lord Astor as chairman, Lady Hailsham, the head of the Teachers' Association, and myself. This enabled us to expand the Milk in Schools Scheme. Later, in the Second World War, Lord Woolton took over the Milk Marketing Board and arranged that the available milk supplies would be distributed on the basis of need, mothers and children getting the biggest share.

I had been agitating for some time against the establishment of food monopoly boards in the interests of producers, and in 1934 had the honour of being invited to deliver the Chadwick Lecture. Sir Edwin Chadwick was the greatest British reformer of the nineteenth century, and this lecture was established to commemorate him and his work. In the lecture I criticised the Agricultural Marketing Boards and urged a comprehensive food and agricultural policy based on human needs which would absorb all home produced surpluses, and if agriculture needed financial assistance to provide essential foods it should come from the Treasury and not from the consumer; the poorest class spent 75 per cent or over of their income on food whereas the wealthy spent less than 10 per cent, and any rise fell heavily on the poor and hardly affected the rich at all. This annoyed the Ministry of Agriculture, and it was suggested to the Minister of Agriculture that as the Rowett Institute was maintained by a government grant the director ought not to be allowed to engage in propaganda against the government. The Minister, however, refused to take any notice of this complaint and said that, as a scientist, the director must speak what he thought to be the truth. It was a difficult time being in a minority of one on commissions.

## CHAPTER 13

# DIETARY SURVEYS, THE CAMPAIGN FOR A FOOD POLICY, AND THE WARTIME FOOD POLICY

AT one meeting of the Research Grants Committee of the Empire Marketing Board in 1927 there was a suggestion for research on the manufacture of dairy products. I suggested that the problem of the dairy industry, both in this country and its overseas possessions, was the disposal of surplus milk, and I advocated a big demonstration to show the nutritive value of milk and increase the sale of the more profitable liquid milk. The Rowett Institute was given £5,000 to carry out the investigation, and David Lubbock, as a voluntary worker receiving no salary, took over most of the work of this new line. A test was made on school children in the seven largest cities in Scotland and in Belfast in Northern Ireland. One group of children was given from a half to a pint of milk every day at school, some receiving whole milk and others separated milk which contained the proteins, vitamins and minerals of whole milk. As a control another group was given biscuits of calorie value equal to whole milk. The test ran for seven months and showed a marked improvement in the health of the children and in their rate of growth, the improvement being most marked in the children of the poorest families. The Department of Health in Scotland was asked to supervise another test on the same lines and this showed the same results—the great improvement in health due to the increased consumption of milk. Then in 1931 Mr. Tom Johnston, who at that time was Under Secretary of State for Scotland (and later the best Secretary of State Scotland ever had) obtained a grant to carry out a test on mothers and children in Lanarkshire. It showed the same beneficial results due to increased milk consumption that the earlier tests had done. As there was still some money left from the grant, David Lubbock did a dietary survey of a number of families with children who had been on the test. Part of this additional expense he paid for himself. When Walter Elliot saw the results of these tests, he put a private Bill through the House of Commons enabling

local authorities in Scotland to provide cheap or free milk to all school children. This was soon applied also to England.

Then the dietary survey was extended to various areas in England. The results showed that one-third of the population of this country, including all the unemployed, were unable, after paying rent, to purchase sufficient of the more expensive health foods to give them an adequate diet.

It was suggested to Walter Elliot, the Minister of Agriculture, that all the data on dietary surveys should be brought together to obtain an estimate of the total number of ill-nourished people, and the amount of additional food which would be needed by the country to provide an adequate diet for everybody. He thought this a good idea, and we got the co-operation of all the Agricultural Marketing Boards and the committee, under the chairmanship of the Marquis of Linlithgow, for regulating imports of food. All the data on the surveys was collected and studied in rooms hired in a building beside Lord Linlithgow's committee. There we brought together all available information on the kind of diet eaten in each of six groups arranged according to income, their physique, the incidence of diseases of malnutrition, and what additions of protein and vitamin-rich foods were needed to provide a diet sufficient for health. This information we began to assemble together for a report we intended to publish.

By speeches, writings, and radio broadcasts, I had been giving as much publicity as possible to the urgent need for a food policy based on health needs. This, however, was frowned upon by the leading civil servants in the Agricultural Department and certain other departments, and even by the government itself. Mr. Kingsley Wood, the Minister of Health, asked me to come and see him. He wanted to know why I was making such a fuss about poverty when, with old age pensions and unemployment insurance, there was no poverty in the country. This extraordinary illusion was genuinely believed by Mr. Wood, who held the out-of-date opinion that if people were not actually dying of starvation there could be no food deficiency. He knew nothing about the results of the research on vitamin and protein requirements, and had never visited the slums to see things for himself. I refused to stop making propaganda for better food for those who could not afford it. I was invited, along with Dr McGonigal of Newcastle, who was

also demanding better housing and better food, to do a joint broadcast on the subject. We were told that this would not be in keeping with the ethical standards of the medical profession, and that we would be brought before the British Medical Council and probably have our names removed from the Medical Register. This would have been fatal for Dr. McGonigal who had to cancel the engagement, but it was of little importance to me, as I had no intention of ever practising medicine again; I told them I would make the talk myself, and if I was brought before the Medical Council I would take every means of informing the public that an attempt was being made to have me crossed off the Register because I was trying to do something for the alleviation of hardship among the poorest third of the population.

When Food, Health and Income, the report of our committee, was in its last stages of preparation for publication, a very senior civil servant came stamping through our rooms one day, without even knocking, demanding 'What is going on here?' He ordered some of the civil servants in Lord Linlithgow's department who on Lord Linlithgow's instructions were co-operating with us, to withdraw at once. Those who had been working with us asked us not to include them as joint authors of the report. This, I thought, might also affect the workers at the Rowett Institute who had been assisting us with information, so I decided to publish it under my own name though, indeed, the greater part of the work had been done by David Lubbock with the valuable assistance of the civil servants working with us. The report Food, Health and Income revealed the appalling amount of malnutrition among men, women and children in Britain. Fearing that publication might by some means be prevented, I decided to give out a general statement of the food position in the country as it was set out in the report. This was done in a lecture to the British Association meeting in 1935 at Norwich. My friend Ritchie Calder, at that time science reporter for the News Chronicle and now Professor of International Relations at Edinburgh University, helped to give the speech the widest publicity. He arranged with other reporters to be present at the meeting and told them the general line I would take. The speech was severely criticised by some of those present, and the main newspapers carried sensational reports of it. This ensured that whether or not Food, Health and Income was

ever published, the public would know that at least a third of the population was so poor that they could not purchase sufficient of the more expensive foods needed for health.

When the report was ready for publication I submitted it to Macmillan and Company, the publishers, the chairman of which was Mr. Harold Macmillan who became Prime Minister of the Conservative Government in 1957. He invited me to come and see him. Much of what was in the book supported what he had been agitating for when he was M.P. for Stockton, a district where there was much unemployment and poverty. We had a long talk, and I found him most sympathetic towards what we were fighting for. He agreed to publish the book, which came out in March 1936, went through three editions and was used as a text-book in some of the American universities dealing with social subjects.

Just before the book was published a minister in the government came to me and suggested that the report should not be made public. I explained to him that reporters from some of the newspapers had, by way of the back stairs, got wind of it and were beginning to clamour for its publication. Unless it was published, these newspapers would be making sensational statements about what was going on. I suggested that instead of trying to prevent its publication the government should take the line that, owing to the great advance in the science of nutrition, they had promoted this inquiry, and that they recommended that it be studied by experts on the subject, with an assurance that it would be the policy of His Majesty's Government to take every means necessary to ensure that every British citizen had sufficient food for health. The minister agreed to this as a foreword for the publication, but his views were not accepted by the Cabinet. The Establishment put up the strongest possible resistance to informing the public of what the true position was regarding under-nourishment among their fellow citizens.

Of the many mixed feelings which impelled me into this campaign for better food the one which created the driving force behind me was similar to the anger an Englishman feels when he sees a horse or a dog being maltreated. The thought of mothers and children suffering malnutrition because they were too poor to afford the more expensive health foods was intolerable. At that time these foods were so abundant that the government was taking

measures to reduce production so as to raise retail prices. Ever since I had been a student at Glasgow University and seen the ill-clad, ill-fed and ill-housed children living in the slums, I had never lost my hatred and anger against unnecessary poverty. Now, as a scientist, I had the chance of giving expression to that anger.

Of course I was only one of many fighting for a new deal for the poor. The late Miss Eleanor Rathbone, Independent M.P. for the Combined Universities, formed a Children's Minimum Committee of some Members of Parliament and those engaged in trying to promote the health of children. This committee was able to get the government to extend free or cheap meals to school children and it also got increased to five shillings the miserable three shillings a week allowance for the children of the unemployed. It was a great satisfaction to all of us when the surplus milk, which had been poured down the drains, was directed to the empty bellies of poor children. The full fruition of the campaign came when Lord Woolton, Minister for Food in the Second World War, brought in a food policy based on nutritional needs, with priority for health foods for mothers and children. To maintain that humanitarian policy calls for constant vigilance.

## PLANS FOR AN INTERNATIONAL CAMPAIGN

In the early 1930s the Yugoslav delegates to the League of Nations suggested that its Health Division should get out information about the food position in representative countries in the world. Dr. Frank Boudreau, head of the division, with Dr. Wallace Aykroyd and Dr. Bennet, visited a number of countries and submitted the report *Nutrition and Public Health*, which showed that there was an acute food shortage in the poor countries. The report was published and got a good deal of attention. This, I think, was the first attempt to get an appraisal of the world food position. Credit is due to Yugoslavia for promoting this investigation. No action was taken on the report, however, until 1935 when the subject was raised again in the Assembly by Stanley Bruce, now Viscount Bruce of Melbourne. He had been Prime Minister of Australia and was now High Commissioner for Australia in London.

My friend Frank MacDougall, economic adviser to the High

Commissioner, was interested in the work of the Rowett Institute, which he frequently visited. He kept Mr. Bruce informed of the Institute's work on human nutrition. At the World Monetary and Economic Conference in London in 1932-3 Stanley Bruce had said that if the best that could be done for a poverty-stricken world was to restrict the production of food and other necessities of life, the Western political and economic system was heading for disaster. Disaster came in the Second World War in 1939. Part of the speech was not included in the reports of the conference.

In 1934 Stanley Bruce was invited as the guest speaker at the Strathcona Dinner. In his speech he showed that if the nations collaborated to provide sufficient food to abolish hunger from the world, there would be a great revival of trade and a reduction in unemployment. A good report of the speech was given in all the leading newspapers. In 1935, at the League of Nations, Mr. Bruce proposed that committees should be set up to find out how much more food was needed, and what means might be taken to get the nations to co-operate in a World Food Plan based on human needs. It was thought that the delegates at this meeting would not be much interested, and the opening was set back an hour because there was not expected to be a debate. On the contrary, the speech was so well received that the debate on it went on for three days, and it was decided to set up the committees Mr. Bruce had asked for.

When this decision was reached, I got a telegram signed by Stanley Bruce and Earl De La Warr, who was Under Secretary to Walter Elliot at the Ministry of Agriculture, and Frank MacDougall saying, 'Dear Brother Orr, this day we have lit a candle which, by the Grace of God, will never be put out'—a reference to a speech made by Hugh Latimer when he and another Protestant were being burned at the stake.

At the committee, which had to draw up the standard diet needed for health, I sat between the Russian and the American delegates. Both co-operated harmoniously in preparing the report. When it was received, the League of Nations Assembly decided to set up another committee of financiers, economists, business men and scientists to work out the economic advantages of such a policy. Lord Astor was chairman, with David Lubbock as his secretary. The final report, *The Relation of Health, Agriculture and Economic*

Policy was published in 1937. It was a best-seller, declared the New York Times.

By 1938 twenty-two nations, including Russia and America, were meeting in conference to arrange how this new World Food Policy could be carried out, but with the outbreak of the Second World War in 1939, the light from the candle was lost for a time in the lurid flames of war.

## WARTIME FOOD POLICY

A few months after the war started, some experts in London asked me to a meeting to consider the war food policy. It seemed to us that the government department dealing with food and agriculture had been mainly concerned with preparations for rationing of food but had not taken sufficient account of where the food was to come from. We decided to ask Mr. Robert Hudson, the Minister for Agriculture, to receive a deputation. He invited us to meet him and listened with courtesy to what we had to say, but he seemed doubtful about what measures should be taken. We left the meeting feeling rather depressed because we had not worked out clearly what we thought should be done. It was suggested that as the Rowett Institute had done a survey of the British food position published in Food, Health and Income we should write another book calling attention to the danger of losing the war through food shortage, and making suggestions on the drastic changes needed in agriculture and in the imports of food during the war.

With David Lubbock, whom I had asked to stay on at the beginning of the war to help the Institute in its food campaign, we wrote a book Feeding the People in Wartime. This caused a good deal of interest in the House of Commons and in the country. I had already done several radio talks pointing out the dangers of a food shortage, and urging every family to produce some food. Even those with no gardens could grow something like parsley or lettuce in window boxes. Lord Woolton, who had been appointed Minister for Food, asked me to come and see him. He wanted to know why I was making such a fuss about food. I said that with the danger of food ships being sunk by German submarines, and the ports like Bristol, Liverpool and Glasgow being bombed, there was a real danger of losing the war through



lack of food because the government seemed to have no plan apart from rationing whatever would be available. It had not decided which foods should be produced to the maximum at home, or what foods giving the maximum calories per cubic foot of shipping space should be imported to supplement home food production. After about half an hour's discussion he told me that he had not been able to discover any food plans on these lines. 'You could not discover what was not in existence,' I replied. He then asked me, 'What would you do if you were in my place?' 'Lord Woolton,' I said, 'if I were in your place I would realise that I was a highly successful business man and a graduate in science, accustomed to looking at the facts but with no knowledge of food production or distribution. I would set up a committee of about half-a-dozen experts, presided over by a lawyer or business man, to study the subject, get all the information possible, and every week, have them submit a report indicating what might be done if the U-boats' sinking of foodships became worse. This committee could produce a report which you could read in five minutes and which might influence your decisions.' Lord Woolton then said, 'I had this in mind, but it was opposed by the Minister of Agriculture'.

Woolton did set up the committee with Sir Allan Anderson, Deputy Director of the Bank of England and an M.P. for the City, as chairman, and Mr. Henry Clay, economic adviser to the Bank of England, as a member. My friend Robert Boothby, now Lord Boothby, who at that time was Parliamentary Secretary at the Ministry of Food, had asked me to be a member, but I told him I didn't want to accept. I gave him a list of the six best experts I knew who might become members. The Establishment, instructed to set up the suggested committee of experts on food production, food distribution and shipping, put about twenty people on it. However, Anderson and Clay got the committee to draw up recommendations in accordance with the facts. The result was that Lord Woolton produced for the first time in modern history a food plan based on the nutritional needs of the people, with priority in rationing for mothers and children. Under this plan, if an occasional cargo of oranges came in, every child in the slums got his orange before a millionaire could get one. The British public approved of Lord

Woolton's plan and, though there was a little black marketeering by 'spivs', it worked well. The rich people got less to eat, which did them no harm and the poor, so far as the supply would allow, got a diet adequate for health, with free orange juice, cod-liver oil, extra milk and other things for mothers and children. This was a great achievement for which Britain is indebted to Lord Woolton.

**The Alternatives — by Sir John Boyd Orr**



From a cartoon by Vicky which appeared in the *News Chronicle*.

## CHAPTER 14

### VISITS ABROAD FOR THE ROWETT INSTITUTE

THOUGH building up the Rowett Institute was a full-time job I was able to visit other research institutions in the British Empire, America and elsewhere. From these tours abroad I came back with new ideas and I made friendships with leading research workers in nutrition whom I was able to keep in touch with subsequently by letter. These visits are of more than scientific interest and I have thought it worth while to record them in a separate section. They are not set out in strict chronological order and the story continues in some cases (for example, Israel and the United States) on into the Second World War and after. But each account is complete in itself.

### SOUTH AFRICA AND KENYA

In 1920 the Rowett Institute's main line of research was deficiency diseases in farm animals due to lack of minerals which occurred in many feeding stuffs and, what was more important, in many pastures. We were doing joint research on this with the Nutrition Institute at Cambridge and important research on it was being done in the famous veterinary station at Onderstepoort in South Africa. It was decided that I should visit this station to exchange information on the work at the two centres and what was being proposed for future investigations.

After boarding out our three small children, two girls and a boy, in a kindergarten school and arranging for friends to visit them to make sure they were happy and looked after properly, my wife and I set sail for South Africa for the useful exchange of information and ideas between Sir Arnold Theiler the head of the station, myself, and Dr. Harry Green who, like myself, had begun physiology at Glasgow University and was now the head of the team working on mineral deficiencies, and with whom we stayed.

We were invited by General Smuts to visit him at his house at Irene, which consisted of two former military huts reconstructed

into a comfortable home. He was deeply interested in our line of research though at that time he regarded soil erosion as the continent's most urgent problem; later we discussed his book *Holism and Evolution* and I had the great pleasure of reading and going over the manuscript with him. One of the ablest generals in the Boer War, after peace was declared he worked for maintaining South Africa as part of the British Empire, and stood for a policy which would greatly raise the economic and political standard of the native population. Many years later at a forum arranged by the *Herald Tribune* in New York in 1946, I had the honour of being a speaker with General Smuts. Every time he came to Britain he invited me to have a meal with him. He was one of the great world figures.

The Rev Dr. Milan, who at that time was Minister of Agriculture, asked me to call on him. He was a Boer. We clashed at the interview, and my wife, who was with me, was concerned because I was so outspoken in expressing my hostility against apartheid to him.

We were also invited to lunch with the Earl of Athlone, the Governor General. Conversation was rather sticky until my wife happened to mention the name of a plant, whereupon the Governor General, who was very keen on gardening, insisted on taking us round the gardens to show us his collection of South African plants, shrubs and flowers.

When our business was finished we went up to Southern Rhodesia to see Major Reilly with whom I had been associated in the First World War. That visit gave us some valuable information on the agricultural problems of Africa. While in Salisbury I called on the Minister of Agriculture at his invitation. Accompanied by a senior civil servant, he welcomed me in his office with a pronounced south-west Scottish accent as broad and beautiful as my own. I replied, emphasising the Scottish accent, whereupon he grinned and signed for the civil servant to leave. We shook hands a second time—‘brither Scots in a foreign land’. When I asked him where he came from he told me his father was stationmaster at Lanark and knew my friend Walter Elliot. He explained to me his plans for the development of an agricultural department and asked if I could recommend a good man to be head of the chemical department he was setting up. At considerable sacrifice to the

Rowett Institute I sent him Alfred Husband, the best chemist on the staff and a close personal friend.

On leaving Salisbury, we called in at Mombasa and went up to Nairobi to inquire about a cattle disease, Nakuruitis, which we thought might be due to some mineral deficiency, which proved to be right. We stayed a couple of nights with Lord Delamere and discussed agricultural problems with him. He was a remarkable fellow. His parents had sent him out on world travel, with a curate to look after him, but at Cape Town he 'lost' the curate and set off north through the African territory until he reached Kenya where he took over a large area of the most fertile land in the country. We met Dr. Gilkes, Chief Medical Officer for Kenya, who took us to see two of the native tribes, the Kikuyu, who fed mainly on maize and other carbohydrate-rich foods, and the Masai, who owned big herds of cattle, sheep and goats, and whose diet consisted mainly of meat, milk, and blood drawn from the living animals with, in addition, such natural fruits and herbs as they could gather. The physical characteristics and the incidence of the various diseases in the two tribes seemed very different, evidently due to the different nature of their diets. When I got back to London, I told Walter Elliot about what we had seen in Kenya, and suggested that it seemed a rich field for investigation. While we were doing feeding experiments with different groups of animals to find out the effect of their diet, here were two tribes living under the same conditions but with very different diets, and here was a disease in cattle evidently due to the lack of some salts. The natives took their cattle to salt licks, which they said prevented or cured the disease. Walter Elliot spoke about this to A. J. Balfour, then Lord President of the Council in charge of the government research institutions. I was asked to dine with him, and tell him about the possibilities of research in Kenya; he said he would call a meeting of some leading scientists in the Medical Research Council, Agricultural Research, and the Royal Society to consider what I had told him. The meeting was convened, with Walter Elliot in the chair, and it was agreed that a team of workers should be sent out from Britain, and that the Rowett Institute should be responsible for the work.

As the work was in the colonies, the grant for it had to come from the Colonial Office, so Walter Elliot and I went there to see

Mr. Leopold Amery, the Colonial Secretary. When we went in and sat down he leaned back in his chair, put his feet up on the table, listened to what we had to say, and replied immediately: 'Go ahead with the investigation and the Colonial Office will find the necessary funds'. We sent out two teams, a medical one under John Henderson, an Edinburgh graduate in arts, science and medicine, whom Sir Walter Fletcher had agreed to take into his office for a year to groom him as my successor as director of the Rowett, and an agricultural team under Hector Gunn who also held three university degrees. The medical group, with the help of Dr. Gilkes, did an investigation on the correlation of diet on the health and physique of the two tribes, which became a classic. The agricultural group, who were given 4,000 acres as an experimental area, demonstrated the effects of feeding supplementary minerals to cattle on the lines of the South African work, and on the enrichment of pastures by proper fertilisers. This work was so successful that a profit was made on the investigation. But alas, disaster overtook us. John Henderson died of cancer, and Hector Gunn was killed in a motor accident. The loss of my two colleagues and personal friends sickened me. I felt that God frowned on our work in Kenya. Though I had gone back and spent three weeks going over the work, I decided to stop the investigation with such sad memories. The 4,000 acres with the money lying to its credit was handed to the Kenya government, and we withdrew.

We left behind a member of the team to carry on some experiments in dairying. The settlers had been importing expensive dairy bulls from Europe to cross with the native cattle. One of the settlers who had done this told me he thought it was a mistake because the progeny either died or reverted to the native type of cattle, and he had begun to breed back to the native cattle. From the knowledge of our pasture survey it seemed to me that the native cattle had become adjusted through many generations to the rate of growth and the milk yield which the pastures could support. It was the same problem as we were acquainted with in Scotland. On the poor pastures in the hills, we reared the smaller black-faced sheep which had a lower average of surviving lambs than sheep in the limestone areas in England. To show that this was due to the pastures, we brought in to the experimental farm

about a hundred black-faced hill sheep and put them on good pastures. There was a fairly heavy mortality at the beginning, but this was gradually reduced, and the black-faced sheep began to grow nearly as fast as the southern bred lambs on good pastures. I suggested to the government that as there was a direct correlation between the soil and the pastures and between the pastures and the rate of growth and production of the cattle, it would be worth while carrying out an experiment to see what would happen to the native cattle if they were fed on as rich a ration as dairy animals in western Europe. A member of our team carried out the experiment. He took in about a hundred native cows, milked and fed them by European methods, and found that a large number gave as big a milk yield as the crosses with the imported bulls. He was then instructed to eliminate those that did not make a big response to better feeding, and keep up the numbers by taking in more native cattle. In the end he had a herd of native cattle with an average yield equal to that in Britain, and having a calf every twelve or fifteen months instead of one calf every two years as the native cattle formerly did. This proved that it is impossible, no matter what expensive bulls you use, to increase production beyond what the native pastures and any additional food will support. Later I tried to get the same principle applied in Palestine where they were importing bulls from western Europe.

## PALESTINE

The Empire Marketing Board Research Grants Committee were faced with the problem of finding profitable projects on which to spend what at that time was regarded as a very large amount of money to be devoted to research. Walter Elliot dominated the small sub-committee, and he brought me in as a sort of consultant on suggestions for research on animal husbandry.

The Rowett Institute became involved in some of the projects, the first of which was an investigation to assist agricultural developments being carried out by the Jews in Palestine. At the end of the First World War Britain was given the mandate to rule Palestine. The Zionist organisation headed by Dr Weizmann asked the Research Grants Committee to send experts from Britain to

Palestine to examine and report on what might be done to improve the agriculture of the Jewish settlements.

In 1926 the Empire Marketing Board asked Sir John Russell to go out and report on what could be done in cropping and me to look at animal husbandry. Walter Elliot decided to go along with me. After travelling through the country and inspecting the animal husbandry methods, I reported that instead of bringing in expensive European bulls to raise the capacity of production on the native animals, what was needed was to provide the grazing and other feeding stuffs necessary to maintain higher yields, and to introduce modern methods of rearing calves and dairying. It was pointed out that imported cattle had not the immunity from local diseases that the native cattle had, and on the other hand there was the danger that imported animals would introduce diseases against which the native animals had no immunity. There was no need to import high priced bulls, because native cattle reared and fed by modern methods in German communities had a higher average yield than in England. When dining with Mr. Herbert Samuel the Governor, later Viscount Samuel, I suggested that he should prohibit the import of animals from Europe.

I took two young Jewish-Polish refugee scientists into the Rowett Institute for a year's training before going out to Palestine, and sent John Crichton from the Institute to give a demonstration on the rearing of calves and the handling of dairy stock. He began at Rehovoth, now the site of the world famous Weizmann Institute. He demonstrated the methods to both Jews and Arabs, with both of whom he got on well.

The Chief Medical Officer, Joe Harkness, who had been a fellow student at Glasgow University and was much interested in the history of the city, acted as our guide in Jerusalem. He showed us where an excavation had been made down about fifty feet to the Pool of Siloam. In this cross section one could see the layers of the building foundations at the time of Jesus of Nazareth; above it the layers made by the Arabs; above that the foundations of buildings erected by the Crusaders who held the city for over two hundred years; and above that the remains of the foundations of buildings erected by the Turks. We went down steps to the Pool where Jesus had cured the lame man.

Our guide took us over the city through the Via Dolorosa where



Jesus had walked carrying His Cross, and into another narrow street of bakeries, which had been established by the Crusaders. The jostling in the streets of people, donkeys, and an occasional camel was a sight to be seen nowhere else in the world.

Harkness told us a most interesting story connected with the building of the Temple. It explained why the sound of hammer and chisel was not heard on the stone. One day a man with a fox terrier had been on one of the highest parts of the hills adjoining Jerusalem and the terrier had got lost while burrowing amongst the stones. When they were cleared away to release the dog they found themselves precipitated into a quarry in the depths of which the stone was relatively soft. It could easily be cut to any shape required, and it hardened when exposed to the ordinary atmosphere. The stones for the Temple had evidently been cut there and slid down the hill to the chosen site. A Freemasons' Lodge had been established there, having its official headquarters at the quarry. The Romans, who were great civil engineers, had built a sewage system, which was still in use, though its whole course had not been discovered. The effluent discharged into 'Cool Siloam's shady rill where sweet the lily grows'. The local inhabitants grew vegetables in the area irrigated by the sewage, but the rest of the population did not use them!

We were much interested in the Jewish immigrants, a high proportion of whom were professional men or scientists, who were working as labourers building houses and roads. We talked to a number of them laying the road from Tel Aviv to Jerusalem. Tel Aviv at that time, 1926, had a number of houses with electric light but was otherwise very primitive, the streets being of sand. At the little hotel where we stayed for a few nights we met the financier Alfred Mond, afterwards Lord Melchett, and discussed with him the possibility of establishing an industry to extract minerals from the Dead Sea, the waters of which are so dense with salts that it is impossible for a person to sink in it.

We have visited Israel several times since to see the progress being made. On one of our visits, Ben Gurion, then the Prime Minister, asked us to call. The son of a Jewish lawyer, he left Russia when seventeen years of age to go and help the Jews in Palestine. He worked first of all in clearing the malaria-infested swamps near the coast and suffered in health. In discussing the

future of Israel with him I suggested that the first essential for the new state was to be able to provide food for its people. He agreed, and said that within five years he would make Israel self-supporting in food. As a matter of fact he achieved this aim. Agriculture, with irrigation, rapidly increased the food supply and produced sufficient fruit, especially oranges, chickens and eggs for export to pay for the wheat and other imported foods. When I went to see him about two or three years later, he looked up from his table and, pointing a finger at me, said, 'Man shall not live by bread alone', and I replied, 'True, but he won't live long without it!'

When we met Ben Gurion, he was living in a small three rooms and kitchen house, drawing a salary as Prime Minister equal only to what a skilled workman was paid. Once, when he was visited by a very high official—the Secretary of the United Nations if I remember aright—the conversation not having been finished at his office, he invited him back to supper at his house. Supper finished, he said to the official, 'My wife and I take turn about for washing the dishes after supper. I go to do it now, and you can dry while I wash.' This dynamic and remarkable man has devoted his life like a fanatic to building up Israel—the zeal of the Zionist who seems to be saying to himself all the time, in whatever part of the world he is: 'If I forget thee, O Jerusalem, let my right hand forget her cunning'.

On our last visit to Israel in 1959 we spent a week sight-seeing, which included a visit to the Sea of Galilee on the shores of which Jesus performed the miracle of feeding the five thousand with the five loaves and two small fishes and delivered the wonderful Sermon on the Mount. We also visited Nazareth where Jesus was born. The workshop where His father is said to have worked is still preserved, and a flourishing tourist business has grown up there. Adjoining the old Nazareth a highly successful industrial centre has been established. We visited a technical school outside Haifa where about nine hundred students are receiving training in the most modern technology to be applied to the building of the new State of Israel. We also paid a visit to the Weizmann Institute at Rehovoth where we met scientists with a world-wide reputation. Most interesting of all, perhaps, was our visit to the Negev Desert, which the British had written off as being absolutely worthless. We found a new city being built at Beersheba with 30,000 inhabitants; streets

were being laid out and factories built to support a population of 100,000. Irrigation brings the melted snows from the mountains of Lebanon to water the desert. Agricultural production has increased to supply food for the growing population, and the surplus of milk, beef, eggs and chickens is sent to the northern cities for consumption or export. This reclamation of the Desert of Negev has brought scientists from all over the world to inspect the methods used. Jewish scientists who have been engaged on this work are, on request, being sent to advise several countries with the same problem as the Negev.

Our last visit was the all too short stay of one week, and we determined to go back again to see what further progress had been made by this extraordinarily vital and energetic nation.

## AUSTRALIA AND NEW ZEALAND

In 1927 Mr. Stanley Bruce, later Viscount Bruce, who at that time was Prime Minister of Australia, asked for Sir Arnold Theiler and myself to go to Australia to consult with research workers and others there on the development of their agriculture and consider its relation to the economic development. I got permission from my governing body to go, and again leaving our children in kindergarten school my wife and I set off, deciding to see as much of the world as possible on the journey to and from Australia.

We went first to Egypt and were appalled at the abysmal poverty of the 'fellahins'--the peasants. We visited Palestine to see how Mr. John Crichton was getting on, and then went to India and Ceylon. At Bombay and Madras we were again depressed by the poverty of the people.

From Colombo in Ceylon we set sail for Australia. We spent six most interesting weeks in the country, sometimes with Sir Arnold and Lady Theiler and sometimes by ourselves visiting the research stations, universities, and several of the sheep and cattle ranches. We spent a week in Melbourne at meetings of the research groups of the Division of Scientific and Industrial Research. I drew up a report dealing with both research and economics in which I ventured to express the view that Australia, depending almost entirely on wheat and wool, might be in a vulnerable position, as

it seemed probable that there would be a world slump in the prices of these commodities which indeed happened.

An interesting incident occurred which amused my Aberdeen friends, to whom I recounted it when we got home; in Sydney I told a government official that I wanted to interview the manager of a certain company dealing largely in exports of dairy products to Britain. He said the manager didn't like government officials and would refuse to see us. However, I said we would still go and see him. The worst he could do would be to order us out of his office. When we got to the entrance hall, the official pointed to a man and said, 'That is the manager', whereupon I went forward and told him that I was out there on the invitation of the Australian government, and would be glad if he would give me some information about animal products, including dairy products, exported to the United Kingdom. He had evidently seen my name in the press, and looking at me asked, 'Are you Dr. Orr from Aberdeen?' Yes,' I replied, am. Dr Orr.' He then invited me

into his office, and I signalled to the government official to come with me. When we were seated the manager asked, in a strong Aberdeen accent, 'D'ye ken Huntly Street?' and I replied, 'Aye, fine that'. He then asked about any changes in Huntly Street where his family had lived, who was Lord Provost, and how Aberdeen was getting on. The official, getting a little tired of this conversation which was Greek to him, remarked, 'But we came here to get some information about exports', which drew the rebuke from the manager, 'Ach weesht, I want to talk about Aberdeen!' By the time our talk about the city came to an end we had become great friends. He asked what information we wanted, and I gave him a list on which we wanted data. 'I will send them to you tomorrow,' he promised. Next day we got all the information we needed, and later a further report arrived giving us far more details than we had asked for—all because Aberdonians who would hardly recognise each other in Aberdeen were close friends when they met in other parts of the world!

The New Zealand government, learning that we were in Australia, invited us to visit New Zealand where a member of our staff had been lent to assist with some research work. Just as we were leaving Australia a seamen's strike broke out and we could not get a boat. Finally we managed to get a passage on a boat

so small that the passengers and crew used the same lavatory accommodation. The weather was very stormy, and it took us two days over the normal time to reach 'Windy Wellington'. The little boat did everything but sink. My wife was really seriously ill, and it took her several days to recover from the voyage.

We spent a week in New Zealand, where I learned a great deal from discussions with research workers I met. From Auckland we set sail for Vancouver in Canada, and on the boat we met a Scotsman who told us he had sold out all his land in Australia, with the exception of his house and a few acres of land, and was going off for a long trip round the world. He said he would go back in two or three years time and buy back all he had sold at half what he had got for it. This was interesting to me because it backed up what I had said in my report to the Prime Minister when I had stressed the possibility of a slump in the price of wheat and other food, which were the main exports from Australia.

In Australia and New Zealand I had discussed the desirability of closer contact between research workers in agriculture in the different parts of the Empire. Everyone agreed, and we decided to hold a meeting in Ottawa in 1928 at which Mr. Neville Wright was commissioned to represent New Zealand. I was authorised to put forward the views of Australian agricultural scientists. We got Walter Elliot to send Sir Robert Greig, Permanent Secretary of the Scottish Department of Agriculture, to represent Britain. In Ottawa the Canadian Minister of Agriculture showed interest in this suggestion and appointed Dr. Grisdale to go into conference with us to represent Canada. We constituted ourselves an unofficial Imperial Committee to consider ways and means for the quicker exchange of information and closer consultation between agricultural research workers in the various Dominions and Colonies. Our proposals were submitted to the British and Dominion governments, India and the Colonial Office, and an Imperial Conference was called to consider the proposal for setting up Agricultural Bureaux in the many branches of agriculture. This meeting was held in 1929 in Westminster Hall in the Houses of Parliament in London, and after two or three meetings it was decided to recommend the setting up of Imperial Bureaux in nutrition, soils, dairying, and plant breeding. (See also page 97.)

## THE UNITED STATES OF AMERICA

In 1923 I was ordered by the Department of Agriculture for Scotland to be one of the delegates to an International Dairy Congress in America. I learned afterwards that it was Walter Elliot, later Under Secretary for Scotland, who asked the department to include me in the British delegation. When we got to Washington and I saw the detailed schedule for the conference with the list of papers to be read, none of which seemed to me to be likely to tell us anything we did not already know, I decided to give the conference the go-by and see as much of America as I could. When the delegates moved off from Washington, where the first meeting had been held, I stayed behind. The chairman of the National Farmers' Union, who was not much interested in dairying, asked if he might stay with me. I agreed, provided we had no set schedule and never decided what to do on any day until after breakfast.

One of my first visits was to have a look at their Agricultural Department. From a long list of publications I glanced through in their library, I picked out one or two and asked if they could be posted to me. They agreed to do this and said they would pay the postage, and on learning my address was the Rowett Institute in Aberdeen, one of the people I was talking to said, 'There are some of our people who would like to meet you'. 'Has the Rowett Institute begun to study the role of iodine in nutrition?' was one of the questions I was asked. I replied that we had begun a research programme on iodine but had not yet published any papers. I enquired why they were interested in iodine and one of them said, 'We have followed your work at the Institute and were sure that your next new line would be on iodine'. This impressed me because nobody in Britain would have been sufficiently interested to wonder what new research line the Rowett Institute might be developing.

There was another thing which impressed me. I had received a cablegram from the Minister of Agriculture in London asking me to try to get information about some plant, which seemed to be important in some of the colonies. I went back to the library and asked about it. I was taken to an official who thought for a moment and then went and pulled out a file and said 'Here are all the papers

which have ever been published on this plant'. The efficiency of the library stuck in my mind and was the germ of the idea for Nutrition Abstracts and Views which I have already referred to on page 97. Later I went out to see Beltsfield, the Agricultural Research Station, and had a most interesting time with the workers there, some of whom I met several times on various later occasions. We went on to visit some of the other American agricultural colleges and research stations and were much impressed by the high quality of their work. At Cornell University we were entertained to lunch at which we were given ice cream the like of which I had never tasted before. When I referred to its excellent quality I was told they had a group of scientists working on methods of improving the manufacture and composition of ice cream. This was only one of the many American projects in agriculture and other subjects which are of interest to business firms, but which would have been considered unworthy of the attention of British academic or agricultural research.

I liked the Americans and got on well with them. Since that first visit, I never missed an opportunity of returning. I once shocked an English lady, one of the aristocracy, by saying sometime before the Second World War that if I were twenty years younger I would try and get American citizenship, because its people were so forward-looking and it was still the land of adventure.

## BELGIUM, GERMANY AND SCANDINAVIA

In the summer of 1938 the Secretary of State for Scotland asked me to go to Denmark, Holland and Sweden to study the public health measures and social conditions in these countries where there was a much lower infant mortality rate than in Scotland or even England. I refused to go. I didn't see any point in a tour of investigation, with these terms of reference; the Scientific Advisory Committee for Scotland, which made recommendations to the Scottish Office on research and administration measures especially connected with public health, had published a report which showed that the infant mortality rate was directly correlated with poverty bringing in its train malnutrition and insanitary overcrowded housing reeking with infection. The infant mortality rate in Scotland in the various income groups was no different from

those in these countries. In Scotland it was higher in the unemployed families in the slums than in any other Western European country because poverty was worst there.

I decided, however, to visit these countries and have a look at their social conditions and public health measures, but to go at my own expense so that I would be free to report what I found. My main objective, however, was to see what was happening in Germany. David Lubbock, who had been in charge of the dietary surveys by the Rowett Institute, accompanied me. Because we were especially interested in the state of nutrition of the people of Britain we decided to take every opportunity of observing the physique of the young people in the countries we were going to visit. As I happened to be in London on August Bank Holiday just before leaving for the continent, I spent the day on Hampstead Heath where the London working-class were out on the spree, and I studied as far as I could the physique of the people there for comparison with their counterparts on the continent.

As a big proportion of the Diplomatic Corps had been educated at Eton, David Lubbock, an old Etonian, was able to contact one of the Corps about the same age as himself and get an introduction for us to public health and other government offices with the kind of information we wanted. The first country we visited was Belgium where the officials of the Public Health Authority were most helpful. We got hold of some health statistics, and then asked to see the slums of Brussels. An official took us by car on a tour of inspection. We saw some narrow streets with old houses, but these had been renovated with modern sanitation and electric light. One group where we made a detailed inspection had a central courtyard laid out with flowers where children could play, safe from the traffic of the street, and seats where some old people were sitting in the sun reading newspapers and chatting. We complimented the official on the obvious improvements but emphasised that it was the worst slums we wanted to see. He assured us that these were the worst. The improvements we saw were only temporary measures, and the whole area was scheduled for rebuilding with modern houses.

At Hamburg, which I knew fairly well as I had spent a few weeks there early in 1914 to learn the language to enable me to read German scientific literature, there had been a big replacement of



the worst slums by modern buildings. In Stockholm we visited the oldest part of the city where narrow streets were maintained because of their historic interest. The houses had all been modernised inside, and they reminded us of the mews in London, once the stables and coach houses with little apartments above them for the grooms and their families, now all modernised and considered chic town houses for the well-to-do on their occasional visits to London from their country homes. In all the towns we visited we saw no slums so degradating as those of Glasgow, Edinburgh or some of the industrial towns of England.

However, it was the physique of the youth in which we were most interested, especially of the Germans. In the early summer of 1936 a German baron who seemed to be an important official had visited the Institute. I told him I was thinking of going to Germany to learn about the food position there, and to see one of the work camps, and he gave me a signed order which he said would get us permission to see anything we wanted. It proved very useful.

In Berlin we were allowed to visit an official who was making a study of the food position. As we had been doing the same thing in Britain we had a most useful talk on methods of conducting dietary surveys, estimations of nutritional standards, and other technical matters of common interest. A copy of Food, Health and Income, our report on food consumption at different income levels, was lying on his table, and he told us he was compiling one on similar lines for Germany and had it nearly completed. He commented on some of the results on the many sheets of foolscap littering his table. I asked if we could get a copy of some of the completed statistical tables and make notes on them. He immediately closed the conversation. I suggested that as he had our data for Britain it was only fair that we should get his for Germany. He was obviously alarmed at having talked so freely with us and hustled us out. Officials had evidently been warned not to give away any information about food. At a public health centre, however, an enthusiastic official told us of what was being done by feeding to attain the highest possible level of physical fitness. Every child got a certain amount of milk and other health foods, and there was a committee in every district with authority to inspect every family to ensure that all the measures designed to promote physical fitness were being carried out. We visited a work

camp and were allowed to join the young men in their midday meal. The food was rough, but the nutrition value was high. The liquid was vitamin-rich fruit juice. After the meal we saw the men marching away in military formation when they had been through their drill with shovels instead of rifles. They looked happy, with a high level of physical fitness.

On the following Sunday we went to the Wannsee near Berlin where thousands of people were swimming in the lake and sun bathing. They had the same appearance of physical fitness as we had noted in the work camp, and we came away with the impression that, contrary to what was commonly believed in Britain, there was no shortage of food in Germany, and the physique of its young people was superior on the average to that of British youth and far superior to that of the unemployed.

The British Embassy could not give us much information about the food position, and we were advised to try the American Embassy. There we found an agricultural attache, Hans Richter, whom we met later in the State Department in Washington. He helped us greatly in the Food and Agricultural Organisation for our first World Food Appraisal. He had been nosing around for about a year and had come to the conclusion that Germany was developing a well thought out agricultural policy which, after the harvest of 1939, would make its food position secure no matter how long war lasted.

The swagger of the Nazis was very noticeable. We visited the beer halls and heard them singing their patriotic songs with great gusto. They seemed to us completely indoctrinated with the Nazi gospel and eager for a war of conquest. It was with a feeling of relief that we crossed the German border to Denmark. Germany's tremendous reserve in real wealth was a demonstration of how rapidly a new powerful state could be built up by a totalitarian regime with a well thought out plan of development. If Hitler had been content to carry on with his industrial and social plans he could, within a few years, have dominated Europe without a war.

From Denmark where we confirmed what we had learned about its well organised co-operative agricultural system and its high standard of education, we went on to Sweden where we got a friendly reception from the public health authorities who gave us all the information we wanted and embarrassed us with their

lavish hospitality. We knew some of their leading agricultural and nutritional experts from their scientific publications, and they had read ours. As professional colleagues we were lunched and dined almost every day. On Sunday we were taken to some lakes where thousands of people were picnicking, swimming, and sun bathing nearly naked. Their physique, we thought, was even better than that of the Germans.

From Sweden we went on to Norway where we visited Oslo and had the pleasure of meeting Dr Schiotz, famous for his experiments in schools with his Oslo breakfast. I found the Norwegians very like the Scots—not surprising since the Vikings who conquered a good part of Scotland left many of their descendants there.

When we got home we wrote a report on what we had learned in Germany, with a statement of the difference between the physique of the German youth and that of the ill-fed Scottish unemployed and poorly paid workers. We gave it to Walter Elliot who passed it on to Mr. Neville Chamberlain, the Prime Minister, who told Sir Horace Wilson, his chief adviser on foreign affairs, to see me. He refused to believe our report, and got so angry when I told him that the unemployed in Scotland would be much better off if they were in Germany and that it was difficult to justify the need to fight a war in the interests of the working-class in England, that he got up from the table and left. I finished my lunch and left my host to pay for it. The British Foreign Office seemed to me to be ill-informed about what was happening in Germany.

## CHAPTER 15

### THE INSTITUTE IN WARTIME AND LEAVETAKING

MY VISIT to Germany in the autumn of 1938 convinced me that war was coming. I began to organise the Institute for war conditions. Plans for a new wing to Strathcona House, the residence for unmarried research workers, were set aside to be brought out after the war. Long-range research was tapered off and replaced by practical experimental work for increasing food production.

Early in the war the Professor of Agriculture at the University of Aberdeen resigned and I was asked to take the chair, which I did, refusing to take any increase in salary because the duties of professor were very light as there were only three students finishing the course. The young Aberdonians, like their fathers before them in the First World War, were volunteering for the forces, and it was unlikely that there would be many new students. The office of professor carried with it the principalship of the College of Agriculture, so I was able to amalgamate the Duthie Experimental Farm and the College Farm with their staffs who worked together with great enthusiasm in experimental and demonstration work.

After Dunkirk, when the outlook was gloomy, there was a most extraordinary upsurge of fighting spirit in the community. All the research workers of military age, though in a reserved occupation, joined the fighting forces. Some, alas, never came back. Groups of men in all parts of the country got together and formed themselves into units for defence. These were afterwards recognised by the government as the Home Guard. I, along with all the remaining members of the staff, joined the Aberdeen Home Guard. It was astonishing the number of weapons that appeared, many sporting guns and a great number of rifles and revolvers, which had never been handed in at the end of the First World War. The units elected their own officers, and the best men were chosen irrespective of their social standing. For example, Colonel Butchart, D.S.O., Secretary of the University, served in a group commanded by one of the janitors. Members of the aristocracy were in units commanded by a gardener or even a poacher. The

units became quite efficient. Molotov cocktails were made, and training given in using them to throw below tanks. The farm I had taken to retire to was one of the depots for small arms. Farm implements were arranged so that they could be quickly pushed out on to the roads to delay invading troops and tanks. If the Germans had invaded there would have been a terrible slaughter, but the dead would have included many Germans. The Home Guard exercises were carried out with great enthusiasm, indeed with such enjoyment that the group with which I was associated wanted it to be continued after the war as a voluntary men's service for work of benefit to the community so that the camaraderie and team spirit might continue though devoted to peaceful activities. That, unfortunately, was found to be impossible.

Women were as active in the war effort as men. My wife, for example, as president of a Women's Rural Institute, organised the members for looking after the local families of the absent soldiers in case they needed help. She was also engaged in daily work on an Aberdeen committee arranging for food parcels and news of their families to be sent to prisoners of war. Everyone was so fully engaged in the communal effort that they had no time to think of their own private worries. Neurosis and psychosis largely disappeared, as always occurs when creative action replaces boring inactivity.

I was often in London attending the Cabinet Food Committee and on other essential business. I was amazed at the way the people of London, and it may be assumed in Coventry and other cities being bombed, organised groups for firefighting, rescuing people in bombed areas, setting up mobile canteens and providing cooking facilities where there was a lack of water due to the bursting of the water mains. No less remarkable was their courage. Underground railway stations were crowded at night with people whose homes had been destroyed, and by others to escape the bombing. Those sleeping there got up in the morning and went off to work as usual. The bombing left the people unafraid. On the contrary it increased their fighting spirit. It was extraordinary how social and business work went on as usual. At a committee meeting in London dealing with the international journal of abstracts edited at the Rowett Institute, the members, when bombing started, merely moved into a corridor to get away from flying

glass and carried on the business as if nothing out of the way were happening. Sitting at lunch in the Athenaeum Club one day during a raid, a bomb dropped nearby shaking the building and shattering any windows which were not already boarded up. I got a start, but my lunch companion, Sir David Chadwick, merely remarked, 'That was a near one', and went on with the conversation. After the war we learned that the same thing happened during our bombing raids on Dresden and Hamburg. The bombs were dropped not on military objectives but on the densely populated housing areas in order to terrify the Germans. Two hundred thousand non-combatants were killed, but it did not diminish the resolution of the Germans never to agree to unconditional surrender. As the bombs were dropped on the residential areas, people actually went to sleep in Krupp's factory where it was thought to be safer.

The Second World War would never have happened had Europe and America carried out the League of Nations Plan of President Woodrow Wilson to get nations to co-operate for mutual benefit to prevent war. Even though it failed, had the British heeded the warnings of Winston Churchill and taken the necessary action, Mussolini and Hitler would have been stopped. A few warships at the Red Sea end of the Suez Canal would have cut the Italian lines of communication and made the unprovoked attack on Ethiopia collapse. Strong action could have stopped the legally elected government of Spain being overthrown by Franco in the Spanish Civil War, which provided the Italians and the Germans with an opportunity for testing out their bombing planes. Though Clement Attlee and other Britons went to fight with the Spanish government side, the British government gave no support and indeed took no action when ships flying the Union Jack were attacked. This was very different from the treatment of the Chinese. In 1857 when a Chinese government ship fired across the bows of a junk believed to be smuggling opium though flying the Union Jack, the insult to the flag was regarded as being sufficient cause for war with China.

Hitler could have been stopped when he marched into Alsace Lorraine. He could have been stopped when he declared he was going to invade Czechoslovakia which gave him the Skoda works which was said to have increased his military equipment by about

50 per cent. The fact that Russia had offered to help Czechoslovakia was enough to make Britain and France hand over that country to Hitler, one of the most disgraceful acts in history. I am inclined to believe, as many others did, that there was a powerful group of the ruling class in Britain who were so afraid of Socialism, and still more afraid of Communism, which was Socialism carried to extremes, that they favoured strengthening Hitler and Mussolini as a bulwark against Communism. It looked as if they would have sold their country to preserve their own vested interests.

## LEAVETAKING

I had decided to resign from the Rowett Institute in 1940 when I would be sixty years of age, but owing to the war I could not do this until it ended. When I finally resigned in 1945, my successor, Dr. David P. Cuthbertson, built up the staff again, reorganised and developed the work and increased the prestige of the Institute.

I myself had been asked to become the first director-general of the Food and Agriculture Organisation of the United Nations. Before leaving for Washington my wife and I were presented with a silver tray and tea service subscribed for by the staff of the Institute and friends in Aberdeen. My wife, who had been active in social service especially during the war, had been friendly with all the Lord Provosts. In making the presentation Lord Provost Sir Thomas Mitchell, a successful business man who had no interest in scientific affairs, said 'We don't mind if Sir John goes to America if he would leave his wife with us in Aberdeen!' This met with great applause. In reply I spoke of how kind Aberdeen had been to my wife and me, and said that though we had to leave for America we left our hearts in Aberdeen. That was no exaggeration. Seldom has a city been so kind to an 'Incomer'. Had it not been that we were so obsessed with the difficulties of the new job I was taking up it would have broken our hearts to leave the Rowett Institute and the kindly city of Aberdeen.

## PART IV

# Politics



## CHAPTER 16

### HOUSE OF COMMONS, HOUSE OF LORDS

IN 1945, while waiting for my successor to take over as director of the Rowett Institute, I accepted an invitation to stand for Parliament for the Scottish Universities, and was elected with 20,000 odd votes to my political opponent's 12,000 odd, but as I left for Washington for the Food and Agriculture Organisation in January 1946, I was only a few times in the House of Commons. I made only one speech advocating that the great advance of science which had been applied in war should now be applied—firstly, to carrying on Lord Woolton's food policy based on human needs, and second, for the elimination of slums and poverty, giving every citizen social and economic security. I argued that this would bring about economic prosperity and make Britain the leading democratic country in the world. In 1947, I saw that my return from Washington was going to be delayed and I resigned my seat. I returned home in 1948 and was given a peerage which enabled me to continue studying, from the House of Lords, the role of Parliament in the government of the country—a fascinating subject.

A place full of history, ceremony and traditions is the Palace of Westminster. Even the most revolutionary members, like those from the 'Red Clyde', after they have been in the House of Commons for a time, are as keen on observing these traditions as any member of the Conservative Party. These customs, observed by all, serve as a kind of cement binding together the members of all parties in a common respect and loyalty to the democratic Parliament with its hard-won freedom and privileges.

I several times met William Gallacher, the last Communist Member of Parliament, in the corridors of the House of Lords, showing his constituents over the building. He always introduced me as his special friend, and I sometimes went on with his party for a bit and listened as he pointed out the different points of interest with as much pride as if the Houses of Parliament belonged to him. Willie Gallacher, though a Communist, was a highly respected member. His Communism consisted of an intense

hatred of poverty; he was transparently honest and firmly believed in what he was saying. The House always had a great respect for an honest member even though they might disagree fundamentally with his views. Once at a meeting in Glasgow, in the St Andrew's Hall, I said that I was not afraid of the Communists doing any harm to Britain. If they or anyone else tried to interfere with the House of Commons, the first man to resist them would be Willie Gallacher ! I told him of this the next time I met him and he was much amused. As the only Communist, he had special privileges in the House and was more often called on to speak than the back bench members of the other parties because he represented a political group, although he was the only member of it—an illustration of the fair-mindedness of the Speaker.

The most touching scene I saw in the House, illustrating the bond of friendship between members, had Churchill as the protagonist. Jimmy Maxton, the leader of the 'Red Clyde' rebels, had been absent through illness for a few months. When he returned and sat down on the opposition front bench Winston Churchill was speaking. When he finished his speech Winston, ignoring the lines on the floor which divide Government and Opposition, crossed over and sat down beside Jimmy. With his arm round his shoulder he talked to him for about ten or fifteen minutes before returning to his seat. James Maxton was one of the most striking figures in the House of Commons. In his university days at Glasgow he had been chairman of the student Conservative Association but later moved to the extreme left. He became a pacifist and spent many months in prison for treason. He had a heart of gold and hated the extreme poverty of the lowest income groups. Once when the Secretary of State for Scotland was dealing with the Scottish estimates, a small sum of money available to medical officers of health for the supply of cheap milk to nursing mothers suffering from malnutrition was cut out to save money. Maxton was furious. He made a speech demanding that this sum be restored in the estimates. When it was refused, Maxton, with deep emotion, said 'This will cause the deaths of mothers and infants', and stabbing the air with his long forefinger he cried, 'You are murderers'. When he refused to withdraw his charge of murder he was taken out of the Commons by the Sergeant at Arms and refused permission to come in again until he

withdrew the charge. He never did withdraw, but after a time was allowed back. In October, 1950, on the fourth anniversary of his death, I had the great pleasure of presenting a eulogy on him with the title 'The role of the rebel in Society'. A statue to Maxton, 'the Beloved Rebel and Friend of the Poor', now stands on Glasgow Green, and there is a James Maxton Memorial Garden at Burrhead.

The House of Lords has the most beautiful Chamber of any Parliament I have ever visited. It is also unique in having so many members who are international authorities. It would be impossible to have a debate on almost any subject without the House of Lords being able to put up half a dozen or more peers who were recognised internationally as authorities on the matter under discussion.

The Civil Service, with some truth, can be said to be the real power behind the government. The top civil servants, like the ministers, are drawn from the public schools and from Oxford or Cambridge (the preponderance has dropped a little in the postwar period). Their education means they are indoctrinated with the ideas of the ruling class giving them a nostalgia for the past and they resent change. The fact that ministers for the different departments are often chosen without any knowledge of the department they are going to run makes them highly dependent upon the permanent heads of that department who will supply their new bosses with memoranda which quite naturally set out their own ideas.

A possible way to change the present system is to groom future ministers for their position. For example, a man likely to become Minister for Foreign Affairs, together with a few of the senior civil servants in that department, should be allowed six to twelve months' leave to visit all the important countries of the world to consult not only the present rulers, but, what is more important, the students and, in the underdeveloped countries, the peasants and poorest inhabitants. The potential minister would then have some idea of the hidden forces which are going to shape the future, and when he became minister he would be less dependent upon the advice of leading civil servants who may have little knowledge of what is happening outside their own particular sphere. The man who was appointed, say, Minister of Health, or Agriculture, should be able to choose the head of his department or even to bring in a distinguished outsider. He would then be master in his

own house and able to dictate the policy he wanted carried out.

Before and after going into Parliament I have had the good fortune to know some of the British Prime Ministers and many of the leading politicians over the last forty years. Arthur J. Balfour took a great interest in the Rowett Institute. Author of *Philosophic Doubt*, he was an intellectual able to see both sides of a question. In political affairs he took account of the views of the Tory and the Labour Parties and his own views were ahead of both. This was not suitable for a political leader who should only see his own side, neglecting all facts and opinions opposed to it. He was a man whose regard for truth and the advance of science was greater than his regard for the future of the Tory Party. This made him, though an excellent Prime Minister, a poor head of the Conservatives.

Stanley Baldwin, whose instincts were those of a country squire, was one of the most honest politicians. At the end of the First World War, he totted up the amount by which his wealth had increased during the war through the companies in which he was interested and he remitted the total to the Treasury—the only man I knew who made a fortune during the war and refused to enjoy it when so many of his fellow-countrymen had sacrificed their lives. When he was accused of not speaking freely about Germany's preparations for war and the lag in the preparations by Britain, he retorted, 'If I had disclosed all I knew we would have lost the election'. What other political leader would have had the honesty to admit that during an election campaign he had not given an unbiased view of what he believed to be the truth.

David Lloyd George, the most interesting Prime Minister I met, was probably the greatest orator the House of Commons ever had. His speeches were accompanied by the most graceful movements of his hands and arms, synchronising words and gestures, appealing to the eye as well as the ear. He once came to Glasgow to a rectorial election to speak on behalf of one of the candidates. I, having no interest in politics, did not take the trouble to go and hear him, but my younger brother—a staunch true-blue Tory who detested Lloyd George—went to the meeting. Afterwards he confessed to me: 'I do not believe in the man, but before he had spoken for ten minutes I was so carried away that I was actually applauding him!' I was told that on one occasion when Lloyd

George was going to speak, a member rose and left the House of Commons when everyone else was coming in to hear him. A friend asked the man going out why he was leaving and he replied, 'I dare not sit and listen to him or I would vote for the little so-and-so!' After the First World War, when the Conservative Party had no more use for him and pushed him out of office, he asked about half a dozen people, including myself, to meet him in committee to consider what should be done to get the country back on its feet. At that time there was widespread unemployment and poverty. Lloyd George wanted to use the unemployed to widen and straighten the roads in anticipation of the increased motor traffic which was obviously coming. He agreed with my suggestion that work should be created clearing out the ghastly slums and instituting a great re-building programme, expanding agricultural production to provide a diet adequate for health for everybody, and in other ways to get the unemployed working to increase the wealth of the nation. The recommendations of Lloyd George's committee, however, had little or no influence. If his schemes had been carried out the country would have been in a much better economic position than it is today. And if he had crossed the floor of the House of Commons and joined the Labour Party, he would have become the leader, and possibly Prime Minister.

During the 1945 Labour Government, and especially later at world government conferences, I got to know Clement Attlee rather well. Attlee I found to be a much abler man than I had thought before I became acquainted with him. Sir Winston Churchill, when someone mentioned that Mr. Attlee was a very modest man, replied 'he has a great deal to be modest about'. So had Churchill himself, if he had ever looked back on all the blunders he had made. Mr. Attlee's modesty was, I believe, his chief fault as a Prime Minister—he played a flute instead of a trumpet—but he was highly efficient. I was told by a Cabinet Minister that at meetings of the Cabinet during the war at which Churchill presided, he did all the talking, giving a brilliant exposition of the progress and prospects of the war and of international affairs and the ministers would leave feeling that they had been present at a great occasion. When Attlee, his deputy, presided, they reached decisions and got through the business in a highly efficient manner. He was no great orator swaying the emotions of his audience, but

I have rarely met anyone who could give such a lucid exposition of a subject. His strength lay in his obvious sincerity, which made his colleagues trust and like him, and I feel sure he never said anything he did not believe. I had the honour of conferring on him an honorary degree at Glasgow University. In the afternoon the honorary graduates were invited to a reception in the Municipal Chambers. Attlee was asked by the Lord Provost to make a short speech. Without any preparation he made a brilliant speech on the importance for democracy of local government. Since his retirement, Lord Attlee has been devoting his life to promoting world government and world peace, than which there is no more worthy aim for a great politician. Of the Prime Ministers I knew, the one I would have liked most to serve under was Clem Attlee.

I only met Winston Churchill once. Obviously no one can deny that he was a man of great ability. Where Attlee is modest and retiring, Winston Churchill was forthright and aggressive. On one occasion in the House of Commons he declared, 'In the future history will say . . . I know, because I will write it'. In addition to his many other qualities he was a first-class writer even though he never had a classical or even a university education. His various books make fascinating reading though it is doubtful whether future historians will agree with all the statements he makes in them, set down dogmatically as facts.

Although I had read his books I never met Ramsay MacDonald till he came to the Rowett Institute shortly before he died. The Institute had invited leading local people to meet him at a lunch at which he made a speech. He was obviously ill at the time and while he was making his speech he reminded me of a bird with a broken wing who could not fly.

I had a number of encounters in the House of Commons with Lady Astor, the first woman member of the House. I had dined at her home several times and worked with her husband Lord Astor on British and international food problems. Lady Astor was very forthright and quick-witted, and many stories are told of her witty sayings. I remember one division where neither of us voted. When the members went to the division lobbies she came over and sat beside me and said that Lord Astor did not wish her to stand as a candidate at the next election. She was well liked by members of both parties because she enlivened debates, and I,

like many other members, was sorry to hear she would not be in the next Parliament. Many regret that when women were admitted to the House of Lords she, the first lady member of the House of Commons, had not the honour of being the first lady member of the House of Lords.

This account of my meagre acquaintance with both Houses might well finish off with a story about Lady Astor. In the 1920s, with rising unemployment and the slowing down of business, there was talk of forming a new party of the more brilliant members of both Right and Left. Lady Astor invited about a dozen of the younger members to a dinner party in the House of Commons. I had the good fortune to be among the guests, who included Bob Boothby, Walter Elliot, Ellen Wilkinson, and Sir Oswald Mosley who had held office in the Labour Government as Chancellor of the Duchy of Lancaster.

When those invited met outside the room taken for the dinner, a message came from Lady Astor that she would be a little late, and asking us not to wait for her. At this one of the guests suggested, 'Lady Astor is teetotal. She will not order any wine. Let each of us now order the wine we would like.' We did so, each ordering a full bottle, even of liqueurs. While we were all enjoying a drink, in came Lady Astor. Looking at the table with its bottles of wine she was horrified. 'Who ordered these?' she demanded. 'I am not going to pay for them.' But of course she did, and the dinner went well.

Conversation during and after the dinner was fast and furious, often with two people speaking at the same time. Afterwards Sir Oswald Mosley asked me to come back with him to his Club. I found him to be a man of high intelligence and courage. He left the Labour Party and formed a fascist party of his own which had many adherents amongst young people. It is difficult to understand why such a talented man adopted a form of National Socialism. It lost him the big following he had, except for a group of anti-Semitic hooligans.

PART V

The  
Food and Agriculture  
Organisation  
1943-48



## CHAPTER 17

### WARTIME VISIT TO AMERICA, THE HOT SPRINGS CONFERENCE AND THE QUEBEC CONFERENCE

IN 1942 I was invited by Dr. Frank Boudreau to go to America and join with the scientists there who were trying to get the movement for a World Food Plan going again. He had become the director of the Milbank Foundation, which promoted new fields of research in preventive medicine. I decided to go by ship from Liverpool in a convoy, which had to zig-zag to avoid German submarines. We landed at Norfolk where we discharged some equipment for a British battleship. The most beautiful sight I saw was the light shining through the blinds of the houses. After more than two years of the blackout in Britain it was a marvellous sight.

At New York, I was met by Dr. Boudreau, who asked me not to take the ten dollars a day I might have had from the British Consul. All my expenses were to be paid, so that I would be under the guidance of a group of my American friends and not under the British Embassy. I reported my presence to the British Consul and we went straight on to Washington, where I interviewed the late Mr. Henry Wallace, the Vice-President. He had brought in the Food Stamp Plan, which put the surplus food into the empty bellies of the unemployed and other poor people, which was good for agriculture, health, and the shopkeepers. I also saw Mr. Sumner Welles, a great man, much in favour of international free trade. He approved of the idea of international co-operation in a world food policy, and asked me to see Mr. Dean Acheson the Under Secretary of State. When I had finished telling him about the proposal for a World Food Plan, he replied by giving me in return a succinct account of my remarks. I asked him if he would please dictate to a stenographer what he had said, and send me a copy, because it was the clearest statement I had ever heard. He did so, and it was a help to me in writing about the advantages of a world food policy in more lucid and logical terms.

While in America Dr. Boudreau twice took me to a meeting in a

club in Chicago where I made an after-dinner speech. Afterwards I talked with some American business men. One of them wanted to know why America should come into the war to help Britain, after what Britain had done to them when they were fighting for their independence. I told them they had got it all wrong. During the War of Independence speeches were being made in the British Parliament in favour of independence for the American States. It was George III, a German, who carried on the war against them, and he found it so difficult to get British troops to fight the Americans that he had to hire Hessian troops from Germany. I said we were now fighting the Germans, and America ought to help Britain to defeat the Nazis.

The American secretaries of departments and other senior staff are more approachable than their counterparts in London. A dinner was arranged at the Cosmos Club, whose members, like those in the Athenaeum Club in London, are intellectuals. It was attended by either the secretary or the leading official of the departments concerned with a food policy, including the Treasury. After the dinner I was asked to speak about the suggested World Food Plan. We then had a discussion on its economic value, and its bearing on getting the co-operation of all the nations as a help to the movement for world peace. A suggestion was made that Mrs. Roosevelt should be asked to invite me to dinner to meet the President. Though I would have been delighted to meet President Roosevelt, I felt that he was so busy with the affairs of his high office that he was unlikely to show any interest in the views of a foreigner whom he had never met. I therefore suggested that the arguments for a world food policy should be put forward by the Vice-President, Mr Henry Wallace, and others to whom the President would listen. Frank MacDougall, who was attached to the Australian Embassy, had been very active in promoting the idea, which had interested Mrs. Roosevelt. He was invited to dinner, and when the President was talking about a United Nations Organisation, Frank MacDougall suggested that a good way to get it going on something concrete would be to get Russia to agree to a world food policy based on human needs. I left Washington hopeful that the President would call a conference of the nations to consider a world food policy.

Sir Allan Anderson, Deputy Director of the Bank of England,

who had been appointed chairman of Lord Woolton's advisory committee to draw up a food plan for wartime Britain, was interested in a world food policy from the financial and economic point of view. He was president of the International Chamber of Commerce and wrote to Mr. J. T. Watson, the president of International Business Machines, asking him to see me when I was in America. Mr. Watson's first reaction to a world food policy was that it was too idealistic and not practical, but after a lengthy discussion, he said he thought there might be something in it from the economic point of view. He asked me to come back and meet a few American big business men. The talk and argument went on for a long time, and at last one of them got up and said, 'Of course it is the right thing to do. It would pull us out of the slough of a recession such as happened after the First World War, but the politicians would never agree to it.' I replied, 'Why don't you business men with your great influence force the American government to take the lead in getting this going to give a great boost to international trade with rapidly expanding markets to keep pace with the rapidly increasing capacity for production?'

I was also taken to see Mr. Winthrop William Aldrich, president of the Chase Bank, and later United States ambassador to London in 1953. He was interested in the food plan from the financial point of view, and asked me to come back again to meet a number of his financial friends to consider it. However, as I was hoping that President Roosevelt would announce a conference of the nations to consider the world food policy, I thought that further discussion by me which might get into the press would do more harm than good, so I excused myself from the suggested meeting on the grounds that I was leaving immediately to catch a plane for home. These meetings of business men and financiers convinced me that if the President was able to carry through the idea of a conference to bring about the collaboration of all nations on a food policy, he would have the support of the more intelligent industrialists and financiers in America.

I left New York for home and stayed two nights at Ottawa on the way. The Earl of Athlone, whom I had met when he was Governor General of South Africa, had learned from the press that I was coming to Ottawa, and he invited me to lunch with him. He remembered all about our talk at a luncheon in Cape Town in

1921 and wished the movement for world co-operation all success.

When I arrived back at Prestwick I phoned home and was given the news that our only boy, Billy, who had left Gordonstoun School to join the Royal Air Force, had been shot down and killed. It was a sad home-coming. Millions of other parents in the world were suffering the same grievous loss.

## THE HOT SPRINGS CONFERENCE AND THE QUEBEC CONFERENCE

When I left America in early December 1942 I felt pretty sure that President Roosevelt in his Christmas message would call on all nations to co-operate in a world food policy as the beginning of building the 'new and better world'. Alas, my hopes were not realised. The bombing of Pearl Harbour by the Japanese on 7 December 1941 had brought America into the war, and, as in Britain, post-war plans were still overshadowed by the great effort needed to win the war. By the summer of 1943, however, it was evident that America, Britain and Russia would be the victors, and the time had come to consider post-war plans again. In May 1943 President Roosevelt invited all the allied nations to send delegates to a conference on world food problems at Hot Springs in Virginia.

I was told that the Americans had asked Lord Halifax, the British Ambassador in Washington, to get the British government to send me as a delegate. This request was refused on the grounds that my views on a world food policy were so different from those that the British delegation would be ordered to state, that my presence would cause confusion if it were supposed that I, too, was representing the British view. On that I had no complaint because my views would have been in line with the League of Nations policy whereas the traditional British view was for cheap imported food, with low wages and better profits in industrial exports and in the shipping required to bring in our imported food from the Commonwealth and other countries.

My friend Frank MacDougall kept me informed on how the conference was going. From the start there was a difference of opinion between two groups. One group wanted a strong organisation, which could take positive steps to increase world production



*Left: With Sheik Abdullah, then Prime Minister of Kashmir (photo: Gottlieb, Copenhagen).  
Right: With Chou En-lai at a reception in Peking*



With President Vincent Auriol of France during a visit to Paris  
in 1949 (*photo: Keystone, Paris*)

with stabilised prices, with an income of ten million dollars—a very modest request compared with the United States Agricultural Department which had 1,000 million dollars for one country alone. The other group wanted to isolate the proposed organisation completely from any positive action and limit it to fact-finding and advisory work with an income of only one and a half million dollars. I wrote urging Frank MacDougall to try and get the conference to give the new organisation executive control of at least the more important, easily storable foods like cereals and sugar. This view was supported by Mr Richard Law, the son of Mr Bonar Law, at that time Under Secretary at the Foreign Office.

The conference, having drawn up a long report, set up an interim commission on the proposed Food and Agriculture Organisation with Mr Lester Pearson, then Canadian Ambassador in Washington, as chairman. It was decided that the organisation would limit its activities to collecting statistics on food production and distribution, promote research, and give technical assistance to food deficit countries. This eclipse of the movement for a World Food Board was a profound disappointment to me. There was obviously no intention of international co-operation to fulfil the promise of ‘freedom from want for all men in all lands’ as set forth in the now forgotten Atlantic Charter of 1941. The old men had crept back into power determined to resist any economic change which threatened their financial interests. I concluded that the fight for a sane policy for peace and economic prosperity was lost, for the time being at least, and took no further interest in the proposed Quebec conference to set up the Food and Agriculture Organisation.

In November 1945 delegates from the nations united in the war were sent to the conference at Quebec in Canada. The British delegation, which consisted of active or retired civil servants who could be trusted to say what they were told, was led by Philip Noel-Baker, Minister of State in the Labour government. He wrote inviting me to join the delegation as an unofficial member, but I did not want to go. My successor as director of the Rowett Institute, Dr. Cuthbertson, had been appointed and was taking over in December. Having got free from the Institute and with a safe seat in the House of Commons as an Independent not liable

to be ordered about by the whip of any party, I was looking forward to an interesting life of relative leisure, with my farm and the prospect of directorships in some companies to augment my income and to enable my wife and me to visit more foreign countries, to find out what was happening in the world. With that pleasant prospect in view, and with the fear that as I had taken such an active part in promoting a world food policy I might be pushed on to some committee of the new organisation which, in my view, was going to be a rather futile one, I decided to decline Mr. Noel-Baker's invitation.

But my wife, whose judgments I had learned to respect, and my colleague and son-in-law, David Lubbock, home from a prisoner-of-war camp in Germany, thought it was my duty to go. So, reluctantly, I wrote Mr. Noel-Baker agreeing, but booked my passage home before the meeting was due to end. On the voyage to Canada the senior civil servant convened a meeting of the delegation and gave us our instructions, which seemed to be to oppose any move to give the new organisation any executive power. The rest of the delegation paid no attention to my comments about the futility of the kind of organisation it was proposed to set up.

I did not spend much time at the committee meetings. I climbed the Heights of Abraham, which General Wolfe's Highland soldiers had climbed to the surprise of the French General Montcalm. At the meetings I did attend as a silent observer, I was more interested in renewing acquaintance with research workers and others whom I had not met since before the war. In this way, with no responsibility, the conference so far was an enjoyable holiday. It might have ended that way had I kept my mouth shut. But some of the delegates asked Mr. Lester Pearson to invite me to address them. When called on to speak, I referred to the great economic and political benefits which would result from international co-operation in a world food policy based on human needs, then argued that the recommendation of the Hot Springs conference could make no contribution to this great ideal. The hungry people of the world wanted bread, and they were to be given statistics. The food deficient countries were to be told by Western experts how to modernise their agriculture, but there were no means of enabling them to get the industrial equipment



needed to do this. Most futile of all was the recommendation for research. No research was needed to find out that half the people in the world lacked sufficient food for health, or that with modern engineering and agricultural science the world food supply could be easily increased to meet human needs. Besides, all the governments controlling the food-deficient countries had well organised research facilities and would look with contempt on any suggestion from the new organisation, and the organisation itself would never be able to provide the facilities and staff needed for scientific research. I urged the conference, even at that late date, to reverse the recommendations and try to get funds and authority to enable the organisation to promote the production and better distribution of some of the main foodstuffs as the beginning of a world food policy.

Though unprepared and without notes it was one of the only two good speeches I ever made (the other was in Vienna, see page 182). The delegates by their frequent applause evidently agreed with the views I expressed. Had the delegates been all scientists and business men free to exercise their own judgment, my suggestion to adjust the recommendation would have been approved. Unfortunately, like the delegates to the Hot Springs conference, they had been told what to say by politicians who had little interest in alleviating poverty, even in their own countries, and even less in eliminating hunger and poverty in the world.

Next day Frank MacDougall, who was an influential member of the main committee, told me that there was a movement to have me appointed director-general. I asked 'Mac' to inform his committee that I refused to be a candidate and suggested that they should try to get Mr. Stanley Bruce of Australia who had originated the movement at the League of Nations. He was in Washington at the time and I believe he would have taken it if he had been asked. I understand that a telegram was sent asking him if he would be a candidate for the post, but he probably regarded the terms of the invitation as an insult and of course he refused. Ex-prime ministers do not apply for posts. I then got 'Mac' to suggest that Lord Woolton be invited to take the job and do for the world what he had done for Britain by his war food policy. That suggestion was not accepted. Either of these men

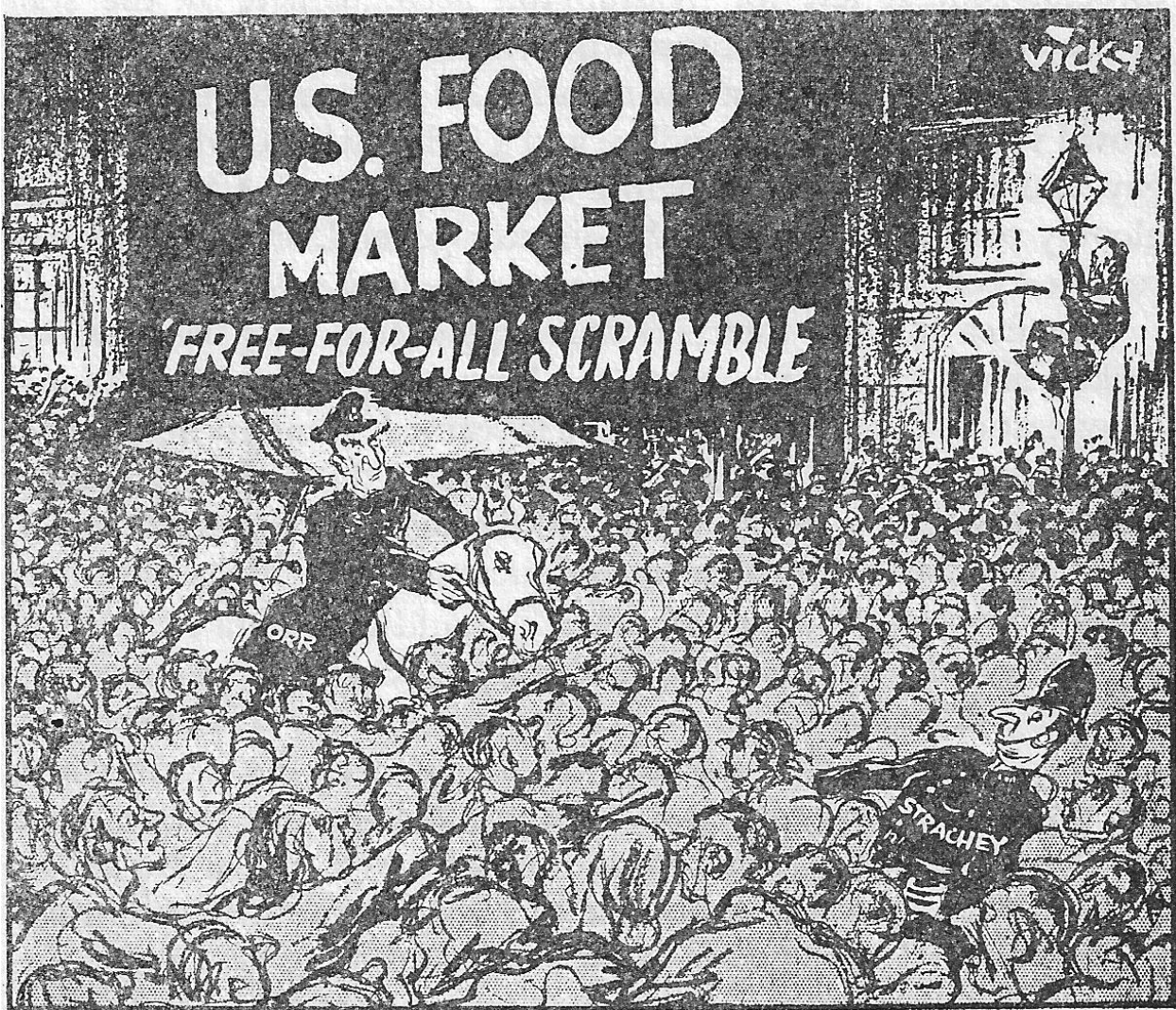
with their great prestige and recognised ability might have persuaded governments to co-operate in a world food policy. It was unlikely that they would pay much attention to proposals from a comparatively unknown scientist.

I decided not to accept the post if it was offered, but some of my friends urged me to change my mind. Dr. Boudreau said, 'You have been fighting for a world food policy for years, and now when you are asked to head an organisation which one day may achieve a world food policy on these lines, you cannot refuse'. To give up the life of leisure, filled with only congenial work, to which I had been looking forward, seemed to me a big sacrifice. However, I decided to have a shot at putting the organisation on the right lines, and if I failed, as seemed to me likely, to retire with honour satisfied. So I accepted, but only for two years which was long enough to get the organisation established with executive powers if governments could be persuaded to agree, and too long if that should prove impossible.

My reluctance to take the post had been strengthened by a cablegram received the day after my arrival in Quebec informing me that I had been elected Rector by the students of Glasgow University. This is a position of great honour, and with opportunities for interesting work if one felt so inclined. It had always been held by a prominent personality, usually one of the leading politicians. As the post was held for only three years, the directorship of the F.A.O., involving residence in America, deprived me of the pleasure of being an active, working Rector. All I was able to do was to make the usual appointment of an assessor to deputise for me in the University Court and deliver a rectorial address. Further, I felt that I would need to give up my seat in the House of Commons, which I did after a short interval. It was in a gloomy and grim mood that I began work as the head of the new organisation.

Mr. Lester Pearson, who has a charming sense of humour, when announcing my appointment said it was strange that an Aberdonian had accepted the post without asking what the salary was. The salary was 24,000 dollars a year. When I learned later that it was not subject to British income tax I ordered it to be reduced to 16,000 dollars with a corresponding reduction for all members of the staff who received their salaries free of tax. With the high

cost of living in America it was not excessive. It was only four times the wage of senior typists. There was an addition of 6,000 dollars for expenses which, with the cost of receptions held almost on the scale of an embassy, did not cover the outlay. I paid the expenses of my wife who accompanied me on frequent visits to other countries. All in all, the financial aspect was not attractive.



**A matter of life and death**

A cartoon by Vicky of the *News Chronicle* which appeared in 1946.

## CHAPTER 18

### DIRECTOR-GENERAL OF F.A.O.: A WORLD FOOD POLICY PROPOSED AND PLANNED

WITH the appointment of the director-general the business of the conference finished. It was followed by a banquet. Next day the director-general left for Washington accompanied by the staff of the Hot Springs conference who were to be retained in the new organisation for at least a few months. At the station there was a crowd waiting to bid us goodbye and a military band which played gay and inspiring music before the train moved off. The only gloomy person present was the director-general, sitting alone in a reserved compartment trying to assess his new position!

The fact that an international organisation had been set up looked like a victorious end to the long struggle for international co-operation in a food policy, but it seemed to me to be a sterile victory because the organisation had neither the authority nor the funds to initiate a policy, which would achieve the results hoped for. I decided to try to get governments to give it the necessary power. The question was whether I should take time to travel to try to get this support before calling a conference to consider changing the constitution, or try immediately for this change. In favour of an immediate attempt was the fact that the war in which the victorious allied nations had been united was just finished, and the Soviet Union which had co-operated well in the League of Nations movement had continued to co-operate at the Hot Springs conference and the Quebec conference, and there was always the danger that the nations united in war would now revert to their pre-war nationalist politics. There seemed every reason, therefore, that the attempt should be made to change the F.A.O. constitution while they were still, ostensibly at least, friends and allies. If the attempt succeeded, the office of director-general would be a most important post, and it would be possible to get a man of international reputation in administration to take over from me. On the other hand, if it failed I could resign on the grounds that a director-general whose policy was opposed by the main governments was obviously not suited for the job.

Having reached this all-important decision on the long train journey from Quebec to Washington, I went up, on the morning after my arrival, to the office of the Interim Commission set up at the Hot Springs conference in MacGill Terrace which was retained for the time being, and set about getting the organisation into shape. The staff who had been appointed after the Hot Springs conference were interviewed individually. They seemed a good lot, and nearly all were given five year appointments in which they all did well. After it had been explained to them what I was going to try to do, no one could have had a more enthusiastic and loyal group of colleagues. Frank MacDougall and Dr. Louwes were appointed as advisers to the director. Frank MacDougall had taken a leading part in the League of Nations movement for a world food policy based on human needs, and in promoting this project in Washington and at the Hot Springs conference. Dr. Louwes had done a good job as Minister for Food in the Netherlands during the war.

The next step, after consultation with the senior staff, was to set up regional offices to facilitate the collection of statistics of production, consumption and prices of food, and to get the co-operation of countries in the area in projects to increase food production and consumption. Dr. Louwes was sent to try and get European countries to co-operate with F.A.O. A regional office was set up in Cairo for Africa and the Middle East, and one for Asia was set up at Bangkok. They were not very successful at first, as the British, when asked to co-operate in their territories, said they had their own officials and had no need of assistance from F.A.O. The office for North and South America was established at the headquarters at Washington. It kept in close co-operation with the United States Department of Agriculture.

Frank MacDougall, who at that time I hoped would soon succeed me as director-general, was retained at headquarters as assistant director to act as chief executive officer in charge of all the details of administration. The only other important appointment made was my son-in-law, David Lubbock, who had been an officer in the Fleet Air Arm and then in a prisoner-of-war camp in Germany. I persuaded him to come over as my personal assistant. I have already told of the leading part he took in the League of Nations movement for a world food policy and in the campaign for a

national food policy based on human needs in the United Kingdom.

As soon as I had arranged the broad outline of the organisation, I took a look at the decisions of the Quebec conference, which I was supposed to carry out. The two hundred odd research projects were soon disposed of. They had obviously been drawn up by people who had little experience of research. The work proposed would have been an inefficient duplication of what was already being done by individual governments. The concentration on research projects at Hot Springs was obviously a way of escape from the more difficult task of outlining measures for increasing the world food supply to abolish hunger. The lot were pushed into the waste-paper basket. Next I arranged with the staff to bring together all the available information of the world food position. In this, great assistance was received from the United States Department of Agriculture. Orris Wells of that department was lent whole-time to F.A.O. and did excellent work. The appraisal, when completed, was alarming. In addition to the half of the world population which before the war lacked sufficient food, Europe—which had the biggest wheat production of any continent—had been so devastated by the war that a serious European shortage was added to the world shortage. There was a post-war world food crisis of huge dimensions. Millions seemed threatened with starvation.

At the meeting of the United Nations in London early in 1946 a member state drew the attention of the assembly to the world food shortage, and suggested that measures should be considered to deal with it. When I read this in the press I, as director-general of F.A.O., sent a cablegram to the President of the U.N. Conference informing him that F.A.O. was dealing with it. An appraisal of the position was being sent to all governments with a request to send delegates to a conference at F.A.O. headquarters at Washington to arrange joint action to increase the world food supply and arrange the distribution of exports to countries according to need. Some thought that F.A.O. was making an unnecessary fuss about the food shortage. Ex-President Hoover of the United States, who had dealt with the European food shortage after the First World War, said it was only a six-month shortage, which would end with the next harvest. When he saw the F.A.O. statement, however,

he changed his mind and came to the conference to help as one of the main speakers.

All governments agreed to send delegates except Britain. I flew to London to see the British Minister of Agriculture, Mr. Tom Williams. To my astonishment, he, with the Permanent Secretary, argued that the conference was premature and should be delayed till the autumn to see if it was still necessary. I demanded to see Mr. Attlee, the Prime Minister. He, as might be expected, with so many other things to occupy his mind, knew little about the world food position or the F.A.O. proposal for a conference. However, when I told him how grave the position was and that all other governments were sending delegates—including the United States—he assured me that Britain would be represented. A few days later we were all delighted to read in *The Times* that Mr. Herbert Morrison, who was Lord President of the Council, was coming to the conference. When Mr. Morrison arrived in Washington, a few days before the conference opening, I met him at a reception at the British Embassy and told him how pleased we all were that he was going to represent Britain; I said that I had arranged a dinner before the conference for him, for the American Secretary of Agriculture, and for the Minister of Agriculture for Canada, with myself as director-general of F.A.O., to consider how the work of the war-time Combined Food Board of the three countries could be dovetailed into F.A.O., the new post-war organisation. To my astonishment Morrison said he knew nothing about the conference and was not coming to it or to the dinner I had arranged. He said he was going to Canada to arrange for the export of wheat to Britain. Unfortunately, I lost my temper and told him what I thought of the ‘Socialist’ Labour government of Britain which, when other governments were willing to collaborate to deal with the post-war food crisis, was only interested in hogging the surplus wheat of Canada with no regard for the millions in other countries liable to die of starvation. Years later, when we were both in the House of Lords, I asked Lord Morrison—who, by the way, I admired as a brilliant parliamentarian who would have made a good leader of the Labour Party—if he remembered the event, and if so, what kind of brief he had got from the officials of the Ministry of Agriculture. He said he had no recollection of getting any brief.

The conference was a great success, apart from the attitude of the British delegation which was led by a retired civil servant who in his speech said that their delegation would be led by Dr. Edith Summerskill who he said was a fine doctor and an able politician and who would appear later. By the time she arrived the conference was practically finished, and I was told she had said she was sent over with little or no information of what it was all about. If she had been properly briefed, she would certainly have given full support to the proposals for alleviating poverty and hunger. That, however, was of little importance. The delegates from other countries were so well informed that after speeches by Mr. Herbert Hoover, the American Secretary of Agriculture, the Canadian Minister of Agriculture, and delegates from other governments, it was decided that as F.A.O. by its constitution had no powers to deal with the food position, an International Emergency Food Council (I.E.F.C.) should be set up, staffed and paid for by F.A.O., to promote increased production in all countries and to deal with all food exports, directing them to different countries in accordance with need, and to fix prices to prevent any rise due to a world food shortage. The I.E.F.C. with thirty-four nations as members, including the chief exporters and importers, was a sort of subsidiary of F.A.O. Mr. Fitzgerald, an able administrator from the American Department of Agriculture, was appointed its secretary by the director-general of F.A.O. It carried on for about three years, by which time the post-war food crisis was over.

Recommendations were issued to all governments to increase food production with suggestions of how it should be done. The United States, which already had a surplus of food, carried out the recommendations and increased its production, as did Canada and other food exporting countries. The I.E.F.C. became the only body through which food for export could be purchased. The United States, for example, was given power to purchase and hold all sugar being exported. Then the foods controlled by I.E.F.C. were distributed, not according to the purchasing power of nations, but to their need. The work of this interim commission saved millions of lives from death by starvation.

At the last meeting of the Washington conference the French delegation proposed that as F.A.O. had dealt so successfully with the post-war food shortage it should submit to all governments



proposals for dealing with the long-term problem of food and agriculture—which was exactly what we were planning to do.

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The establishment of I.E.F.C. gave the new organisation some much needed prestige, and encouraged us in our efforts to get governments to agree to change the constitution of F.A.O. to give it authority and funds to initiate a world food policy. The hastily drawn up appraisal of the world food position was revised and extended. To enable us to estimate the amount of food which would be required in the near future, we asked population experts to estimate the increase in the number of mouths to be filled in the next twenty years. We were astounded to learn that the world population was increasing at about 22,000,000 a year. In the nineteenth century it had increased on an average by about 7,000,000 a year. Taking account of this fantastic increase, it was estimated that in the next twenty years the world food supply would need to be increased 100 per cent to eliminate hunger and malnutrition. A few years later, Dr. Milton Eisenhower, a brother of President Eisenhower, estimated that production would need to be increased by 108 per cent in the next twenty years. In the interval between the two estimates, population had increased that much faster than the food supply.

The revised appraisal of the world food position was issued in May 1946 to all member governments of F.A.O. together with a proposal to set up a World Food Board, with an invitation to send delegates to a conference in Copenhagen in September of that year to consider the suggested plan for F.A.O., either alone or allied with other organisations, to be given authority and funds to increase food production and organise distribution to eliminate hunger and malnutrition from the world.

The main functions of the proposed international authority were set out as follows:

- 1) To provide, on request by any food deficient country, longterm loans to enable them to purchase surplus foods from food exporting countries and industrial products needed to modernise their agriculture to increase food production:

the loans to be given for approved projects and their use supervised by an international authority.

- 2) The loans to be given on business lines but free of interest or repayment of capital until hunger and abysmal poverty had been eliminated, after which payment of interest or repayment of capital would begin.
- 3) The country receiving the loans to be free to use them to purchase the industrial products needed for agriculture from whichever country it could get them cheapest and most suitable to its needs.
- 4) The international authority to consist of business men representing all areas of the world under the general supervision of the United Nations.
- 5) It would have authority to buy and hold stocks in countries with an exportable surplus of storable foods not immediately marketable after a bumper harvest, and release from the store after a bad world harvest. This would enable the prices for some of the main foodstuffs to be stabilised within reasonable limits. It would also have power to promote the increase of the agricultural products needed to double production in twenty years. It was argued that the resulting increase in the world's wealth, beginning with food and later industrial products, would bring about a great expansion in world trade with increased prosperity for all countries.
- 6) The co-operation of all nations on a world-wide project of developing the vast potential resources of the earth for the benefit of the wealthy as well as the poor nations would make co-operation easier in political spheres and be an important step to the evolution of the United Nations Organisation as a World Government without which there is little hope of permanent world peace.

The first opposition came from Mr. Will Clayton of the American government, who was trying to organise an International Trade Organisation (I.T.O.) for the lowering of tariffs and better regulation of world trade. He urged me to withdraw the proposal for a World Food Board and cancel the conference. I argued that the board need not conflict with I.T.O. On the contrary it would

lead to a great increase in world trade. But food, a primary necessity of life, had to be treated differently from other goods like motor cars which were not vital. Food for the world should be considered like a clean and adequate water supply for a town, paid for by the whole community in proportion to income. Mr Clayton wanted food brought under the I.T.O. which regarded trade as an end in itself. I wanted trade in food to be an exception to other forms of trade, being directed to providing an adequate supply for the people. In the end, I absolutely refused to consider withdrawing the proposal and cancelling the Copenhagen Conference.

An attempt was made to get support from the press for F.A.O. proposals beginning with the American press. The American papers, especially after the success of the Washington conference on the post-war food crisis, had been sympathetic to F.A.O. The New York Times in reports and leading articles had given it favourable publicity, as had the Herald Tribune which invited me to one of its famous forum talks to speak about F.A.O. on the same day as General Smuts of South Africa spoke about world political affairs.

Invitations were sent to the leading newspapers to send representatives to a lunch in Washington to hear statements on F.A.O. plans for dealing with the long-term problem of food and agriculture. The statement about the proposal for a World Food Board was received with enthusiasm, especially by the younger journalists. Sir Willmott Lewis, The Times Washington correspondent, a very competent man as one might expect as the representative of Britain's leading newspaper, was asked for his views. He said that in a sane world with benevolent governments, the proposal would be approved: but we were not living in a sane world with benevolent governments. The proposal would probably be approved by the lesser powers but not by the great powers. After a lifetime spent in reporting international affairs, he had reached the sombre conclusion that no great power would ever do any good it was not forced to do, nor refrain from any evil it was not afraid to do. He predicted that the great powers would all agree 'in principle' but would block any attempt to have the proposal carried through.

The representative of the Daily Herald—a very decent fellow I got to know later—said his paper was not interested in the F.A.O.

proposal. The Labour Party knew little and cared less about any world movement to promote the welfare of the common people of the world, which one could well believe after Herbert Morrison, the Lord President of the Council, had refused to have anything to do with the conference to consider the post-war world food crisis.

Having got the promised support of the American press I went to London and interviewed the editor of *The Times*. He was superficially sympathetic, but I left with the feeling that I had got a courteous 'brush off'. He, I am sure, regarded me as a simpleminded idealist trying to promote an impracticable project. The editor of the *Economist*, Mr. Geoffrey Crowther, while civil enough was less courteous than the editor of *The Times*. He seemed to think that a scientist venturing to submit suggestions dealing with world economic affairs was out of his depth and hardly worth listening to. Looking at it from his rather narrow point of view he was probably right. Keynes, had I known him and had the opportunity of discussing the plan with him, would, I am sure, have been more interested. However that may be, the *Economist* had an article hostile to the whole idea of the World Food Board.

Later, in August 1946 when Parliament had just risen for the summer recess, I thought it might be worth while seeing Mr. Attlee, the Prime Minister, who had responded favourably when I asked him to ensure that Britain sent a delegate to the Washington conference to deal with the post-war food crisis. When I met him at 10 Downing Street he seemed to me to be very tired, as might be expected at the end of the session. After some talk about the general idea of international collaboration in eliminating hunger from the world, with which he agreed, I began to speak of the proposal for a World Food Board. It became evident to me that he still knew nothing about F.A.O., and without that background, he would only be bored by further talk about the proposal coming up for discussion at Copenhagen in the following month. So I thanked him for the interview but left with the feeling that Britain would use all its influence to prevent the proposal being approved at the impending conference.

My attempt to persuade Mr. Attlee to become interested in this project was rather foolish. He was doing a magnificent job as Prime Minister of a Labour government with many inexperienced

ministers, reorganising Britain after the war and putting through so many much needed social measures that he could not be expected to be well informed on what he must have considered side issues of the foreign policy. All this he left to Mr Ernest Bevin, in whom he seemed to have full confidence.

## THE COPENHAGEN CONFERENCE, A WORLD FOOD POLICY-PLANNED

The Danish government did everything possible to make the Copenhagen conference of September 1946 a success. The King and Queen attended the opening session and welcomed the delegates, wishing them a successful conclusion to the deliberations on a subject of such great importance affecting all nations. Other meetings, apart from the main conference, were arranged, some presided over by the Danish Prime Minister, and there were social events for the entertainment of the delegates, with lavish hospitality. Ministers of State and members of the Royal Family attended these events, to talk freely to the delegates and their wives. The wife of one of the senior officials of F.A.O., an American, was telling her friends about the most interesting and entertaining partner she had had at one of the dinners, and was completely flabbergasted when she was told that this was the Crown Prince, heir to the throne. Good weather during the whole conference helped to give delegates a happy, lasting memory of 'wonderful Copenhagen'.

At the conference, the director-general outlined the proposal for a World Food Board, and suggested that if the proposal were approved, a commission should be set up to work it out in greater detail. The delegates of the poverty-stricken food-deficient countries strongly supported the proposal, which, if carried, would have made them participants as political equals in a project which seemed to promise a rapid rise in the standard of their people, and the beginning of progressive economic prosperity. The food exporting countries were equally strongly in favour of the proposal, which seemed to provide a rapidly expanding world market at a guaranteed remunerative price for as much as they could produce. The three most important speeches came from Mr. John Strachey, the British Minister of Food, Mr. La Guardia, the Director

General of U.N.R.R.A., previously Mayor of New York and Mr. Norris Dodd, the American Under Secretary for Agriculture.

Mr. Strachey, who had inherited some of the literary abilities of his distinguished father, made a fine literary speech, even going to the length of quoting poetry. He thought, however, that there were grave dangers, the nature of which he did not disclose, in adopting the proposed World Food Board. He suggested that the conference should resolve to pass the proposal for a World Food Board to the I.T.O. (International Trade Organisation, Mr. Clayton's organisation) or failing that, to the Social and Economic Division of the United Nations. To remit it to I.T.O. would have suited the British government as the I.T.O. never got organised and the idea would have been abandoned. If sent to the U.N. the proposal for the World Food Board would have been put in a pigeonhole and forgotten.

Mr. La Guardia had come straight to the conference from Moscow. I had written to Stalin outlining the proposal and asking for an interview to discuss it with him. I was informed that Mr. Stalin was at that time resting somewhere near the Black Sea and would not be available for interview until just before the Copenhagen conference when it was impossible for me to go to meet him. As F.A.O. was taking over the work of U.N.R.R.A. and Mr. La Guardia and I were working together, I got him to go to Moscow. Russia had co-operated in the League of Nations movement for a world food policy, in the Hot Springs conference and at Quebec when F.A.O. was established, so the Kremlin was fully informed about it. When Mr. La Guardia arrived in Copenhagen he told me that he had discussed the proposal with Stalin and later with the whole Politburo. He was assured that the Soviet Union would cooperate wholeheartedly with the World Food Board provided that the United States and the United Kingdom did so, but they thought that neither the United States nor the United Kingdom would agree to co-operate in such a revolutionary movement for the promotion of the welfare of the people of the world. This was not disclosed to the conference. It was thought that the fact that the Soviet Union were in favour of the proposal might influence Britain and America against it.

La Guardia, invited as the representative of U.N.R.R.A., was the only non-governmental delegate. He was, therefore,

probably the only delegate free to express his own view instead of what he had been told to say. 'I am not a diplomat,' he declared. 'I have always told the truth.' He made a passionate appeal for the Food Board which could bring about a beneficent revolution promoting the welfare of the common people of the world. 'The Food and Agricultural Organisation,' he said, 'is the hope of the world.' He urged the conference to give the proposal unanimous recommendation, and instead of wasting time by calling a commission to outline the plan in greater detail as the director-general had suggested, to appoint immediately a small committee to get the board established with authority and funds to carry on the grand scheme of international collaboration to abolish hunger and poverty. It was a most dramatic speech, with an emotional appeal, from someone who spoke on behalf of the poor people in the world. The world press gave a very meagre report of it.

Mr. Norris Dodd, Under Secretary for Agriculture in the United States was the leader of the American delegation. The decision of America was all-important, so everyone was eager to learn what America had decided. After referring briefly to the benefit a World Food Board could bring to both producers and consumers Mr. Dodd continued: 'We are in favour of the general objectives laid down by Sir John Orr. In order to work out a plan for the achievement of these objectives we recommend the establishment of an F.A.O. commission for which he asks, to work out in more detail an international programme for the stabilisation of agricultural prices at levels which will be fair to producers and consumers and which will bring about the improvement of nutrition throughout the world. We believe that the commission should be established by this conference and that it should make its report to the director-general of F.A.O. at the earliest possible date so that it may be called to the attention of each of the member nations and international organisations concerned in preparation for its final consideration by F.A.O. at the earliest opportunity. We are living in a time of great need and in a period when changes come rapidly. I cannot emphasise too strongly the importance of preparing now to meet food and farm problems of the future. We all know how difficult and complicated this task may be. But the objectives towards which we are working are of the utmost importance both for the immediate and for the long-term future.'

Furthermore, these objectives can only be achieved through international collaboration.' The declaration that America approved of the world food plan and urged the immediate setting up of the commission which I had asked for, to work it out in more detail, created enthusiasm and excitement. Reporters rushed to phone the news to the world.

The speeches of the two Americans, La Guardia and Dodd, had decided the issue so far as the conference was concerned. The World Food Plan was unanimously approved in principle and the director-general instructed to arrange for a commission of experts, appointed and approved by member governments, to meet as early as possible and to appoint a chairman. The F.A.O. staff at the conference were delighted with the result and were sanguine that the Food Board would be established. I warned them, however, that we were only through the first barbed wire and must be prepared for more deeply entrenched opposition, but we hoped for the best.

On the way back to Washington I saw Mr. Stanley Bruce who had been the leader of the League of Nations movement for international collaboration in a World Food Plan, and persuaded him to agree to become chairman of the commission to work out the plan in greater detail.



## CHAPTER 19

### VISITS TO EUROPE AND LATIN AMERICA FOR F.A.O.

THE interval between the Copenhagen conference in September, 1946 and the Bruce commission in Washington in May 1947 was devoted to trying to get more support for F.A.O. from member countries, and I spent a great deal of time travelling all over the world to urge our plans. There was no need to go to countries like France and Denmark, which were vigorous in their support of a world food policy. It would be a very good thing for France with 40 per cent of its population on the land. A guaranteed world price for agricultural products would have helped its peasants. The same applied to Denmark, a big exporter of animal products, and other food exporting countries.

One of the difficulties I found in other countries was that as the Copenhagen conference—with the exception of Britain—had unanimously approved of the F.A.O. food plan it was thought it was, if not already in operation, at least coming into being almost immediately and able to give the help which some of the countries so urgently needed. In one country where I was welcomed by the Prime Minister and another minister, I explained that although the food policy had been approved in principle in Copenhagen, F.A.O. would have no power to do anything until after the Bruce commission had reported, and indeed there was no absolute certainty that the commission would get the support of all the countries needed to carry through the policy. ‘Ah,’ said the Prime Minister, ‘I see you are not Jesus Christ—you are only John the Baptist.’ They assured me I had their support for the policy.

In Rome, after useful talks with government ministers, I was invited to meet the Pope in private audience, probably due to some manoeuvres by the F.A.O. official who was accompanying me as secretary and who was a Roman Catholic. I had half an hour with him trying to induce him to make a strong statement in favour of the collaboration of all nations for the development of the resources of the earth to eliminate poverty, beginning with an attack to abolish hunger. He listened with patience to what I

had to say and then expressed complete approval. I ventured to suggest to him that he might find occasion to recommend that all good Catholics should do their utmost to help F.A.O. to achieve its great objectives. I met him a second time when I again urged this and he arranged for me to interview the Vatican official in charge of foreign affairs. I could not get this official, a very shrewd politician, to promise to persuade His Holiness to make the kind of statement which would have rallied to our side all Roman Catholics throughout the world. However he promised to send a Vatican representative to the F.A.O. conference.

When my audience with the Pope was ended, he wanted to give me his blessing. 'As a Protestant,' I told him, 'I could not conscientiously kneel before you.' 'Never mind,' he replied, 'I will still give you a blessing,' which he did and presented me with a special little medallion. I left with the impression that the Church might not be quite so evil as I had thought, and might ultimately change to bring it more into line with other branches of the Christian religion—which indeed is happening.

When it was announced over the wireless that I had had an audience with the Pope, my sister, who was still in the Calvinistic Presbyterian Church, was alarmed. She met several people who suggested that her brother must be about to join the Catholic Church. But she had no cause to worry.

The Vatican observer who was later sent to our conference was Monsignor Ligutti whom I had met at a conference at Des Moines, Iowa. He was doing excellent work in rural districts, particularly in Latin America, in raising the living standards among Roman Catholics, especially by promoting projects for eliminating hunger and malnutrition. He came several times to F.A.O. headquarters and we became friends as we were both agreed as to what was needed in the world. Once when I was discussing his plans with him which were all in line with what the F.A.O. wanted to do, he remarked to me: 'If ever I have the good fortune to be elected Pope, I will make you a cardinal even though you don't at present adhere to the Mother Church!' I met Ligutti again in Rome many years later, in 1962 when Pope John, a man I thought of wonderfully fine character, came to greet the delegates gathered in the city for a conference on world peace. Before speaking to the

delegates, the Pope came over to shake hands with Lord Attlee and myself.

## AUSTRIA

We went north from Rome, spent the night at Venice, and then proceeded by car over the hills to Austria by snow-covered roads through beautiful scenery. At the frontier we were stopped by Russian guards. On learning who we were and what we were doing, they became friendly and took us into their hut to have a drink of coffee and get warmed.

On reaching Vienna we found a devastated city full of half-starved people. I had been looking around at the ruins and was going in for afternoon tea to a hotel reserved for British troops when I met the Under Secretary for Foreign Affairs in the Austrian government, walking with his wife and their child of about five years of age. As I had arranged to meet him shortly after to accompany me to the Foreign Office, I invited him and his wife and child in for tea. They said they wouldn't be allowed in, but I assured them it would be all right and led them into the hotel. The sergeant in charge stopped us and said that while I could go in, the Austrians were not permitted to enter. I asked permission to phone British headquarters in Vienna on which he finally allowed us all to go in. At the tea table it was pathetic to see the countess, wife of the Under Secretary, and her child wolfing the food. During the meal I said to her, 'You will find it difficult to get sugar?' and she replied, 'We cannot get sugar at all'. I took one of the paper napkins, emptied the bowl of lump sugar into it and said, 'Take this'. Again when I said, 'You won't be able to get any of these cakes?' she replied, 'Oh no, it is impossible', so I emptied the plate into another napkin and, after a furtive look round, the countess pushed the cakes into her bag in a way that would have aroused the admiration of the most accomplished shop-lifter! When we were leaving for our appointment at the Foreign Office the child was still busy eating a big sandwich. The mother tried to take it from her but I said it was all right and let the child finish the sandwich. I walked out, holding the child's hand, and the sergeant in charge—a decent fellow—just smiled at us.

There was no difficulty in getting the support of the Austrian government for a world food policy though at that time it was an

occupied country, with no power. To my surprise they gave an official luncheon for me at which all the Austrian ministers were present. Not having spoken German since before the First World War, I had great difficulty in following what the minister was saying when proposing a toast to me. I was sitting next to the British Ambassador who very kindly translated parts of it for me. I was wondering what on earth to say in reply and at the same time I was listening to the lovely Strauss music played by the band. The Austrian minister sitting on my other side told me that the beautiful and valuable violins they were playing had been buried in waterproof coverings when the Nazi armies invaded Austria, and had been dug up again when the Nazis were driven out. The Strauss music, of which I am very fond, gave me the idea for my reply. I said how sad it was to come to Vienna which had once been a great centre of culture, with one of the leading medical schools in the world, where modern clinical psychology—now one of the most important branches of therapeutic medicine—had originated; and I talked about the other gifts Vienna had given to the world, including the beautiful music to which we had been listening and which is heard nearly every day by thousands of people in every part of the civilised world. I finished up by asking who could compare, in American dollars, the value of these great gifts, which Vienna had given to the world for nothing with the few tons of wheat which were needed to save its people from starvation. It was, in my opinion one of the only two good speeches I ever made because I was deeply touched by the hunger and poverty of the people. I could not get out of my mind the picture of that hungry child wolfing food, and I could not forget the faces of the people I met in the streets, which carried the obvious signs of hunger and malnutrition.

After the sumptuous meal we retired for coffee and liqueurs to the beautiful salon in which were many valuable works of art. I suggested to one of the ministers that they might raise a little money by having an exhibition of these in some American cities, but he replied, 'If we let them away there would be pressure brought to bear on us to sell them and we would never get them back again'. As we were leaving about three o'clock in the afternoon I was told that one of the ministers who had been at the luncheon, whose weight had fallen from about twelve stone to eight stone, had

died after the meal. The rich food had been too much for his weakened digestive system. I realised then the reason for the lunch. It was not so much to honour me as to provide a decent meal for the Austrian ministers and senior officials.

## POLAND

Vienna was the saddest city I had ever seen, until I came to Warsaw. There I was very much embarrassed, because the Poles were under the impression that a World Food Board had already been established. When we got off the train, we were met by a deputation of ministers lined up alongside a red carpet laid on the platform. We found the people were sure that food was being made available to them at once whereas I had nothing to offer. Warsaw was a mass of ruins. The only buildings left standing were those which had been the headquarters and offices of the Nazi army during their occupation. I was informed that after blowing up all the other buildings they had not sufficient explosives left to blow up these offices before they retired in front of the advancing Russians.

I was astonished to see in that city of ruins that the first building to be repaired was a Roman Catholic cathedral, while people were living in all kinds of shacks amidst the rubble; even in these conditions it was amazing to see how many of them had little patches of flowers around their temporary homes. We drove out into the country and saw the ill-clad peasants working in the fields in their bare feet. Poland was a sad sight.

I went to Poland twice again—once in 1948 after I had left F.A.O. and was entertained to dinner by a group of Polish ministers. It was after the disastrous harvest of 1947. Most of the ministers could speak English, and after a long discussion, one of them said to me, ‘We hate and fear the Germans, and in our past history we have suffered at the hands of the Russians. We wanted to join with the West and could have arranged that with the Americans, but Britain wouldn't have us.’ I found later that the Poles had wanted to make English their second language, but the British Foreign Office had prohibited the export of English books to Poland. Later I was able to get some British men going to Warsaw to carry in a few pre-war scientific books, because the

Nazis, before leaving, had destroyed their scientific libraries and the equipment in the laboratories, breaking glassware and the arms of balances, thus delaying the redevelopment of their higher education and scientific research.

Greece and Poland had asked F.A.O. to send a group of experts to advise on the development of their agriculture. The delegations to both countries were given a good welcome and there was full co-operation with the officials. The report on Greece stated that a grant or loan of two hundred million dollars would be sufficient to finance the development plans agreed with the Greek officials and bring about a rapid increase in food production. Instead of this grant, which might have made for peace in Greece, Britain sent in troops to support the reactionary government and the Royal Family and hundreds of Greeks who had been fighting on our side against the Nazis were thrown into prison. The mission to Poland did some small amount of good although we were never able to follow it up by supplying the fertilisers and industrial products needed to increase production.

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In furtherance of the plans for international co-operation I arranged for F.A.O. to co-operate closely with the Economic European Commission, which had Gunnar Myrdal as its head. With them we worked in the closest association through various committees for both Eastern and Western countries and arranged successful trade deals—for example coal from Poland to Sweden in exchange for timber, and the exchange of timber for Western products, which Eastern countries urgently needed. At one of these committees dealing mainly with food, Western delegates were so impressed with the speeches made by the Rumanian delegate that they insisted on him being given the honour of being the president of the final plenary session.

When General Marshall, Secretary of State 1947-49, announced the Marshall Aid Plan for Europe I went down to the State Department and met Mr. Thorpe, the expert on European affairs. I urged him to get the Marshall Aid put through the United Nations via F.A.O. and Gunnar Myrdal's E.E.C. I said that America could lay down any conditions it liked, so that it would not lose any power, and that the joint collaboration of East and

West in the U.N. agencies would bring in the countries behind the Iron Curtain. Russia, at that time short of food and devastated by war, might have been eager to join in. In any case, it was in no shape to prevent the other Iron Curtain countries co-operating with the West. After a few interviews, Mr. Thorpe agreed that it seemed a sound policy and advised me to put the case before General Marshall. I did so in a memorandum and had a most courteous reply from him saying that he appreciated the potentialities of my suggestion but that whether or not this could be done would depend upon the Western allies of the United States. I knew France was all right so did not trouble to write to Paris. I wrote to the British Foreign Office but got no reply. In the end the aid was limited to the Western countries and most of it poured into Western Germany, which enabled it to reconstruct and develop faster than Britain and become the most prosperous European country with the biggest gold and dollar reserve. This limiting of American aid to the West broke up the collaboration between the Eastern and Western countries begun by Gunnar Myrdal, one of the most far-sighted men I have ever worked with, and F.A.O.'s influence in Europe rapidly declined. In my opinion, a great opportunity for getting East and West to collaborate was lost; it would have been an important step towards world peace. Later, Mr. Truman said that if we could get our Russian friends to agree with us on an agricultural food policy it would be easier than getting agreement on the political issues which divided us. Russia could not be blamed entirely for its failure to co-operate in what Mr. Truman rightly saw to be a wise course.

## LATIN AMERICA

Early in 1947 I visited several Latin American countries, some of which had not yet joined F.A.O. while those who had joined had been a little absent-minded about paying their contributions.

My wife and I were accompanied by Roberto Arellano Bonilla, a Latin American graduate of Santiago and later a graduate of an American university. He was a highly entertaining and well-informed travelling companion who gave us snapshots of the history of the countries we visited, and recounted for us the conquest of Latin America by the Spaniards which, according to his account,

must have been a brutal business but highly successful from the religious point of view; the Roman Catholic religion was imposed everywhere except in the outlying districts where the natives still retained much of their primitive religious practices. He also gave us an idea of the current political situation, with the left-minded people, including university students, seeming to be in simmering revolt against the governments, which were supported by the United States.

At Lima, in Peru, after meeting with ministers, we visited the University where we were impressed by the fact that there was obviously no colour bar. We watched groups of girls coming out of the classes arm in arm, with all gradations of skin colour from the pale European to Indian and Negro types. Skin colour seemed to be regarded as of no more importance than the colour of people's hair is in this country.

From Santiago we set out for Buenos Aires by plane with oxygen masks as the Andes are about 15,000 feet high. There was beautiful sunshine with no wind, and instead of going right over the top the plane wended its way through the peaks giving us a gorgeous view of mountains and valleys. At Buenos Aires we met a number of the ministers including the Minister for Foreign Trade who, we were told, had begun life selling goods from a barrow on the streets. When we asked him about the possibility of getting grain and meat at a lower price, he replied that he was following the excellent custom of the successful Western countries by selling at the highest price the market would carry. He added that, knowing Britain was short of cash after the war, he was prepared to make a loan at 8 per cent interest, which he claimed was what Britain had charged the Argentine, provided he got a lien over the coal mines, railways, or other assets similar to what Britain had held in the Argentine when it had advanced money for its development.

We learned something about British history we had not known before. Across from the hotel where we stayed was a huge monument. I went over one morning after breakfast to look at it and could make out that it was to commemorate a great victory the Argentine had had over the 'Ingles'. Roberto informed us that after the Napoleonic War the British army had been sent to conquer the Argentine but had been defeated. We could not



verify this in British history books. The ministers were favourably disposed towards F.A.O. probably because we had met and made friends with the Argentine Ambassador in Washington who was a surgeon and had commended us favourably to them. A meeting was arranged with General Peron but the date fixed for it coincided with the date we had arranged to visit Uruguay. The meeting was postponed for a few days but we could not get back to Buenos Aires on the later date as dense fog prevented the plane flying, and as Peron was going to the country we missed the opportunity of meeting him.

In Uruguay our first visit was to the President, where we were ushered in by two naval officers in full uniform. The President told me he was a farmer, and when I answered that I also was a farmer, he would talk of nothing but farming and was most disappointed when I could not agree to spend a couple of days on his farm to which he was longing to get back as soon as he could get free from the presidency. Uruguay had an excellent medical school and social services, including old age pensions which were more advanced than in Britain. The government was able to find the money for these benefits because, being a small country, it did not think it was worth while keeping up a large army or navy. The navy consisted of two ships, one anchored in the harbour and unfit to go to sea, and the other one beached on the shore where it was useful to the women who dried their washing over its rails!

When we found that we could not get back to Buenos Aires for our appointment with General Peron, we set out for Brazil. With the possible exception of Sydney, Rio de Janeiro has the most beautiful harbour in the world, but there we saw the biggest contrast between the wealthy and the poor people who lived in ramshackle shelters on the outskirts of the city and the hills surrounding it. We were invited to dine with the ministers at eight o'clock in the hotel where we were staying. When it came to eight o'clock we were anxious to go down to the dining-room to meet our hosts, but our good philosopher and friend Roberto said there was no need to move yet because none of them would turn up till well after nine o'clock. As a matter of fact it was ten o'clock before they had all arrived and we could sit down to dinner. This lack of punctuality, we felt, involved a waste of time but we were told that their view was that 'Life was short while time was endless', and it

was therefore foolish to waste the pleasures of life merely to save time—which seems to me to be an excellent philosophy. Roberto told us that, when there was some urgent meeting which had to be held on time, they put after the time stated ‘English time’ which meant that the meeting would begin at or about that time. We met there Professor de Castro who was the Brazilian representative to F.A.O. and a strong supporter of a world food policy. He wrote a book about the appalling hunger of the poor people of the world and got me to write an introduction to it. The book was a bit of a shocker but it sold well and helped to arouse interest in the hunger and poverty in the world. He was later elected chairman of the council of F.A.O.

From there, we went north to visit some of the smaller republics. My most vivid recollection is of Caracas in Venezuela where great developments were going on, new buildings and public restaurants where anyone, rich or poor, could get a very cheap meal. When I inquired how the government had been able to get the finance for these developments Roberto had a very interesting story to tell us. He said that when a new bargain had to be made about the oil royalties, the oil companies approached an eminent lawyer in Caracas to put forward their case. He agreed and said his fee would be a thousand dollars; the representatives of the oil companies said that this was far too small a fee and they had something much larger in mind. The lawyer replied, ‘A thousand dollars is an honest fee and I will state an honest case’. Whether due to this lawyer or not, Venezuela got a much better deal with the oil companies, including back payments of royalties which had never reached the government coffers. This new wealth, he said, had provided the funds for the new developments.

In all the other Latin American countries we visited we found no difficulty in meeting the ministers who were all in favour of a world food policy which they rightly thought would be of great advantage to them by giving them a decent price for their food exports and financial aid for much needed developments. In some of the countries we visited, we got the impression from people Roberto introduced us to that there were left-wing pressure groups especially among university students who felt that the United States dominated Latin American countries in its own economic and political interests. This may have been true; the

powerful European nations, when they had colonies always negotiated from strength in business deals and if this failed, they sent in their troops to maintain law and order—not the order that the people in the colony wanted but the order that preserved the privileged position of the ruling nation. On the other hand, in Latin America there was great respect for Britain where the Labour Government was carrying out its free National Health Service and other social measures. One Prime Minister was so loud in his praise of Britain that I suggested to him that he might write direct to Mr. Attlee, the British Prime Minister, saying some of the nice things about my country which he had been saying to me. He was very hesitant to do this because he had never met Mr. Attlee who, he was sure, would never have heard of him. I suggested that the fact he had never met Mr. Attlee would make his letter congratulating him on what Britain had done and wishing him all success, of even more value to the Prime Minister of Britain than if he had been a personal friend. I learned afterwards from Mr. Attlee that he had received this letter and that it was much appreciated.

The last country we visited was Cuba. Due to the efforts of Roberto we had held a press conference in every country we visited which gave us a great deal of publicity. When we arrived at Havana and opened the morning paper the first thing we saw was a photograph of my wife and myself going into the hotel, with the caption: ‘They have arrived!’ I was astonished at the number of ministers in Cuba who belonged to the medical profession. The President was a professor of physiology, and many other ministers and chief officials were medical men. Roberto told us that the number of medicals in the government had been brought about by a recent general election. Former elections had been greatly influenced by the American fruit, sugar, and other companies which largely controlled the press. At the last election, however, the American Ambassador had called in the representatives of these companies and told them that this time they were not to interfere. They laughed at him and said that the State Department would soon put him in his place. He replied, ‘My instructions are from the President and if they are not carried out, a full statement of the activities of the American companies will be prepared for the President and released for the press’. As the doctors, next to the Roman Catholic clergy, were the class for

which the people had the greatest respect and confidence, they were persuaded to stand as candidates with the result that about 20 per cent of the members of both government houses were medical men. One of the ministers I interviewed was doing a first-class job in food and agriculture and in education in nutrition. 'Now that you are doing such valuable work for Cuba,' I said to him, 'you will never go back to the university again.' He replied, 'I have not given up my post at the university. I asked for leave of absence to enable me to take up this job but I expect to go back to the university some day, because Roosevelt will not live for ever.'

I would have liked to go back to make a more leisurely visit to some of these most interesting countries, but the only one I was ever able to visit again was Cuba in 1962 (see page 277), and it was very different from the Cuba of 1947.

## CHAPTER 20

### WASHINGTON CONFERENCE: A WORLD FOOD POLICY—BLASTED!

IT was impossible to get the member governments of F.A.O. to send delegates to Washington to work out the plan for a World Food Board in greater detail before April 1947, seven months after the Copenhagen conference where it had been approved. At the opening meeting, the first speaker, as at the conference in Copenhagen, was the United States delegate. In a short speech, he said the great powers were not prepared to give any authority or funds to any international organisation for the purpose set out in the proposal for a World Food Board. By the great powers he meant America and Britain. France fought for a World Food Board to the last ditch, as did all other countries, especially the food exporting countries, who saw the prospect of a stable world market at profitable prices, and the hungry countries who hoped for an end to their hunger and poverty. Russia, surely one of the great powers, sent a message to Mr La Guardia, head of U.N.R.R.A., that it would join if the United States and the United Kingdom joined. Russian officials whom I had been courting to get the Soviet Union to join, told me afterwards that they knew the United States and Britain would never agree to such a plan which embraced the welfare of all the people of the world; they maintained there was no hope of such a plan, until a world Socialist state had come into existence which would put the interests of the common people before the profits of big business.

The delegates were so stunned by this reversal of policy by the United States that no other delegate wanted to speak and the meeting broke up in confusion. Some of the younger American reporters came to me and offered all the help they could give if I would continue the fight for the World Food Plan. I was grateful but I knew they could not control the policy of the big newspapers to support big business which seemed to be against this idea of international co-operation. Since America and Britain, the two most powerful Western nations, were determined to squash the plan, any further effort to promote it seemed to me hopeless. I

decided there and then to leave F.A.O. so soon as a successor could be appointed.

Though America and Britain had joined to kill the plan it was decided that Stanley Bruce, ennobled that year as Viscount Bruce of Melbourne, should carry on with the commission in the hope of salvaging something from the wreckage. I took little interest and attended only one meeting. The time was more profitably spent in trying to strengthen the organisation and get support for it in other countries to enable F.A.O. to do useful work within the limits of its authority and funds and so manage to survive until some future happier time when the great powers would realise that co-operation for mutual benefit was the only alternative to mutual suicide in a third world war. The Bruce commission made its recommendations, the main one being the setting up of a World Food Council to keep the world food position under review and try to get whatever co-operation was found possible, in promoting approved recommendations from F.A.O.

To complete the story of the suggested World Food Plan we will move on to the annual F.A.O. Conference six months later at the Palais des Nations at Geneva. Here the British delegation, all civil servants, excelled themselves in opposing everything that involved any international co-operation or giving any authority to F.A.O. even in minor activities. Mr Harold Wilson, who was then Secretary for Overseas Trade and had been on the Bruce commission, was in Geneva at the time. I told him how the British delegation was behaving and asked him to restrain them. He said that as they were not in his department he had no control over them but he would speak to them. He called them to his hotel and argued with them for hours, but made no impression on them. At one of the meetings of the commission of which Lord Bruce was chairman they carried on their obstructive objections to every item, moving amendments which held up the business, though no one ever seconded their amendments. At last Bruce lost his temper and told them what he thought of them. One delegate, a vice-chairman of the commission, said to him, 'Brutal, but they deserved it', which seemed to accord with the views of the other delegates.

I had a head-on clash with these British civil servants at another commission presided over by Mr. Mackechnie, the Ambassador for



*Top: A visit to Ben-Gurion, then Prime Minister of Israel (photo: F. Schlesinger, Jerusalem). Below: With Lord Attlee at a world government conference*





Cartoon from a Norwegian paper depicting Lord Boyd Orr, Director-General of F.A.O. and Mr La Guardia, as Director-General of U.N.R.R.A. *Below*: Vicky's cabinet of eggheads with Lord Boyd Orr as Minister of Agriculture: from the *New Statesman*



VICKY'S NEW YEAR CABINET

'A country neglects its eggheads at its peril . . . it is time we got together.'

—Lord Hailsham



Uruguay. I was lunching with Gunnar Myrdal, the head of the U.N. Economic Commission for Europe with which F.A.O. was co-operating. An F.A.O. official came in and told me that the British delegation was arranging to wreck the work of the commission. I hurried to the Palais des Nations before the meeting began and told the chairman I wanted to speak before he introduced the first item on the agenda. I then told the delegates that the British delegation had arranged to make a counter-motion to everything that was proposed and so wreck the work of the commission. I made no secret of what I thought of the British delegates! I heard later that someone present had said 'The director-general rose with a face white with anger. He had the fire of God in his belly, and he belched.' I asked the British delegation to come out into the corridor where I informed them that unless they stopped these obstructive measures, I would go to Westminster immediately after the conference and get Mr. Robert Hudson, Mr. Walter Elliot and other M.P.s in the Conservative Party to get the subversive, ungentlemanly conduct of the British delegation raised in a debate in the House of Commons.

The British delegates felt they could be arrogant and stamp their feet on F.A.O. because they had behind them the British Foreign Office, which was opposed to any kind of international co-operation, and America which had repudiated its support for a World Food Plan. They might have stated honestly that their instructions were to oppose any movement for international co-operation through F.A.O. to eliminate hunger from the world. Instead of that their underhand subversive measures and their arrogant behaviour alienated the other delegates who lost a great deal of their respect for Britain.

The British opposition to a world food policy can be understood. England's wealth had been created by the import of cheap food and raw materials produced by natives with wages so low that they lived in abysmal poverty, and paid for by expensive industrial products. The suggestion of a 'new deal' for the native producers, beginning with a fair price for the food Britain imported, seemed to threaten English economic prosperity.

If the Conservatives had won the 1945 election there would have been a good chance of Britain supporting the proposal for a world food policy. Walter Elliot who, as Minister of Agriculture,

had done a good job in saving the British agricultural industry from bankruptcy, had promoted a policy of increased consumption of food and expansion of markets as the long-term measure for agriculture, and had sent his Under Secretary, Earl De La Warr, to support Mr. Stanley Bruce at the League of Nations in 1935 in his campaign for a World Food Plan based on human needs. And Mr. Hudson who had co-operated efficiently with Lord Woolton in his war food policy based on nutrition needs, was so much in favour of a world policy on similar lines that when he learned that I was going to America to assist in reviving the League of Nations movement, he offered to go with me if my visit could be delayed for a month, which, unfortunately, was impossible. Mr. John Strachey, the Labour government's Minister of Food, though doubtless an able man in other respects, could not be expected to have the same knowledge of agriculture or its implications in the economic field as Mr. Elliot and Mr. Hudson.

The American view is also easily understandable. President Roosevelt and his associates, who had taken a statesmanlike view of the future and promised a new deal for the poor countries in a 'new and better world', were gone. The American government under President Truman had swung to the right and come under the influence of big business which had always been opposed to Roosevelt's 'New Deal' ideas. Further, as America was by far the richest country in the world, in any international plan for a world food policy it would be called on to provide about half the cost. It was, therefore, tempting to use American wealth to promote their own prestige, power, and economic interests in implementing any food schemes for the food deficient countries.

I managed to arrange an interview with President Truman, before the Bruce commission met, to try to get his support for the world food policy, but when I got to the White House I found someone from the British Embassy was there and went in with me. He so completely monopolised the conversation that there was no chance of speaking about F.A.O. I had the pleasure of lunching and dining with Mr. Truman many years afterwards and discussing international affairs with him. I am certain that if all the facts had been put before him he would have supported the F.A.O. plan. I admire President Truman for his courage. He was not afraid to take decisive action on what, with the facts available to him, he

believed to be right. In the Korean War he realised General MacArthur, the military idol of the American people, would have started another world war if he had carried out his threat to bomb China. In 1948, when on 13 May, the day before the British gave up their mandate in Palestine and withdrew their troops, and Assam Pasha, Secretary of the Arab League, declared war on Israel and said it would be 'a war of extermination and momentous massacre', President Truman, eleven minutes after the Jewish National Council had proclaimed the independence of Israel, recognised the new state, to the astonishment of the U.N. General Assembly and the United States representatives. Four days later the Soviet Union followed the example of the United States and recognised the independent state of Israel. Though war between the Arabs and the Jews continued, President Truman gave financial aid which enabled the new state to survive and prevented what would have been a massacre and the start of another world war.

In our sitting-room we have autographed photos of many leading men in the world. In one group are the men to be admired for their courage, whether or not one believes in their politics. Harry Truman might be astonished and not too pleased to find his autographed photo in the group between President Tito of Yugoslavia, who so successfully fought the Nazis and later refused to let his country be a satellite of the Soviet Union, and Premier Chou En-lai of China.

## CHAPTER 21

### THE CAIRO CONFERENCE

AFTER the collapse of the plan for a world food policy I spent the time of waiting for my successor to be appointed in organising F.A.O. for statistical work and technical assistance which seemed to be the most useful thing it might accomplish with its limited authority. Having organised the staff as well as I could, I devoted the rest of my time trying to strengthen the regional offices. The Middle East one centred at Cairo under Hefnawi Pasha was one of the most interesting. He was a former Minister of Agriculture in Egypt, a well-informed man and a congenial colleague. We got on very well with him and indeed with all the other Egyptian ministers. He told my wife that I was the only Englishman who had ever spoken to him as an equal.

I had sent technicians to the Middle East countries to find out, by investigating the natural resources and by consulting the native staffs, what kind of measures were possible. Before the conference met in Cairo in 1948 we looked at all the national plans and worked out a rough regional plan taking advantage of the rivers which ran through the different countries as sources of irrigation to recondition land which had lost its fertility. When this preparatory work was done we were ready for the Cairo conference. Egypt and the other Middle East countries regarded it as of considerable importance. The flags of all the Middle East countries were flying in front of the conference building, and the Prime Minister of Egypt, as chairman of the conference, welcomed all the delegates on behalf of King Farouk.

In my opening speech, I thought it wise to boost the ego of the delegates by referring to the great contribution the Middle East had made to modern civilisation. It was there that modern science began. Astronomy was studied to enable the Egyptians to predict the time of the flooding of the Nile so that they could prepare the ground for sowing and get ready the seed. Euclid of Alexandria, 300 B.C., the greatest mathematician of antiquity, had laid the basis of modern mathematics. The Alexandria school of medicine was as far advanced in therapeutics as Western Europe was up to

the middle of the nineteenth century. The Egyptians, long before the Christian era, were able to measure the circumference of the Earth. It was in the Middle East that the three great religions—Jewish, Mohammedan and Christian—had originated, and Western civilisation had made no advance on the ethics of these religions to which, today, about half the people of the world adhere. The excellent government of the Sumerians and the Chaldaeans divided the year into fifty-two weeks and originated the Christian Sabbath by making one day of the week free from labour for meditation for 'the peace of the soul'.

I turned from the glories of the past to the present and spoke of the desperate poverty of the common people. I referred to the broad plans for developing the area and showed that, with the great wealth from oil, part of which might be used to finance the development plans, and the potential fertility of much of the soil, the Middle East, if there was co-operation between the different countries, could achieve great prosperity and restore its former greatness. The speech was well received and the conference then divided into commissions to deal with the different aspects of the plan which F.A.O. had outlined in general terms.

The British had a technical commission in the Middle East and I invited them to attend the conference much to the annoyance of delegates from some of the Arab countries who regarded them as acting only in the interests of Britain and likely to oppose any plan for collaboration in a food and agricultural policy in the Middle East countries. I did not realise how resentful the native ministers were against their former European rulers and their fear of an attempt to re-conquer them. In spite of that, I thought it would be helpful if we could get the goodwill of Britain for the proposed developments. I had several talks with Assam Pasha, Secretary of the Arab League. He was in favour of the development plans and took me to a meeting of the League which had been convened while the conference was in session. I stressed to the ministers of the different countries the rapid progress which could be made if they united their forces for the development of agriculture in a regional plan. They seemed to be impressed and gave general agreement to the plan. The Foreign Minister for Iran came to me afterwards and said that if I would come and carry through the plan he would

send a plane to whatever part of the world I happened to be in to bring me to the Middle East.

At the end of the conference, the participating countries all offered to contribute to the support of the plan; Egypt offered to provide fully equipped offices, the assistance of the staff of the universities and veterinary services which were highly efficient, and some funds. Syria offered to provide a fully equipped agricultural farm for practical experimental work on the application of modern agriculture to the conditions of the Middle East. It was obvious to me that there would be great difficulty in carrying through the ambitious projects which the conference had approved, and I considered that the best way was to begin with one or two modest plans which might be carried through successfully and from small beginnings collaboration between the various nations would evolve. It was suggested, and agreed, that we might begin immediately with the elimination of rinderpest from Cape Colony to Pakistan, and with a bigger co-operative plan for the more efficient control of locusts. It was agreed that a conference on the elimination of rinderpest should be held at Nairobi in Kenya where there were first-class laboratories and veterinary staff dealing with the disease. I later got Dr. du Toit, the head of the famous veterinary station in South Africa, to be chairman of the proposed Nairobi conference, and left Egypt with considerable confidence that the regional plan might succeed.

Before leaving I had a final talk with Assam Pasha when I ventured to speak about the conflict between Arabs and Jews. I pointed out that the Jews and Arabs were both Semitics—blood cousins so to speak—and it was unrealistic for the Arabs to talk about massacring more than a million Jews; the great powers would never stand for it. I also mentioned that the Jews, with far more technicians than they had any need for, could help to make up the deficiency of technicians in the Arab countries. He seemed half persuaded that an end to the conflict and agreement with the Jews might have beneficial results for all concerned, but he said collaboration with them was hopeless because the democratic system practised by the Jews would have meant the end of the absolute powers of the rulers who were rich with the oil royalties which they seemed to regard more as personal perquisites than national assets,

King Farouk was so much interested in the conference that I was invited to call and see him at a private interview. I was told about the full evening dress I would need to wear, but I said I had no evening dress with me and that shortly before coming to Egypt I had stayed at Balmoral Castle as a guest of the King of Britain, and having no evening clothes with me I was given permission to wear an ordinary lounge suit. I thought that what was good enough for King George was good enough for King Farouk. This was agreed to. I thought King Farouk highly intelligent but debased from evil living. He was pessimistic about the future and said to me, 'The whole world is in revolt. Soon there will be only five Kings left—the King of England, the King of Spades, the King of Clubs, the King of Hearts and the King of Diamonds.' I pointed out to him that unless something was done to relieve the abysmal poverty of the fellahin (the peasants) there would be a revolt in Egypt, as part of the world-wide revolt which he anticipated. I reminded him what one of the Pharaohs had done in bringing about irrigation and improving the agriculture in Egypt, and what his father had done in what was a desert area where now there was a high output of tropical and agricultural products; I suggested that rapid development in Egypt on these lines, which was part of the plan the conference was considering, would make for the stability of his position as king. I also suggested that, in addition to what the conference was doing, he might have a film made showing the evolution of agriculture in which Egypt had played such an important role from the beginning of civilisation up to the present day. By that film, Egypt could create goodwill for itself in other countries. He agreed to do this, but after I left he must have thought it not worth while.

When I got back to Washington I saw Mr Alec "Jim" Duckham, the British agricultural attache who, by the way, had been trained at the Rowett Institute, and is now Professor of Agriculture at Reading University, to give him a full account of the conference. I suggested that he might write to the Ministry of Agriculture in Britain pointing out that if the plan succeeded there would be a greatly increased market for British agricultural equipment and other industrial products. He did write, but informed me later that he got no reply.

I then went to London to try to get the Colonial Office to agree

to join with F.A.O. in the invitations to experts to the suggested rinderpest conference at Nairobi, but when I saw the Under-Secretary for the Colonies, a very decent fellow but with little knowledge of agriculture, I found that he was engrossed with the British groundnuts scheme in Kenya and did not think it would be advisable for Britain to adjust its own plans to fit in with the plan outlined by the conference. He spoke for nearly twenty minutes about the groundnuts scheme which he regarded as of far greater importance to Britain than any collaboration in the Middle East. Unfortunately, I at last lost my temper and said to him, 'Mr. Minister, there is no need to tell me about the groundnuts scheme. I have spent my life in agricultural research and am a farmer. I once controlled 4,000 acres in the East African area doing experimental work in agriculture, and I can tell you here and now that the groundnuts scheme is ill-advised and will end in disaster.' The head of the Duthie experimental farm, possibly the ablest practical agriculturist I know, cabled me in Washington saying he had been offered a post in the groundnuts scheme and asking whether he should accept it. I told the Minister I had cabled back telling him on no account to have anything to do with the scheme. After that little explosion, I said that what I wanted to know was whether Britain was prepared to co-operate in the rinderpest investigation, and if the Minister refused to consider it, I intended to go across to the House and get some of the Conservative members who knew about agriculture to put down questions on the order paper about the refusal of the Colonial Office to co-operate in the conference at Nairobi and I said I would supply them with information about the futility of the groundnuts scheme. He turned then to the civil servant who was in attendance at the interview and said, 'Perhaps we had better reconsider the question of collaborating in the rinderpest work'. The civil servant rose, with an angry gesture picked up his brief-case and announced, 'I am not in favour of international co-operation', and walked out of the room. The Minister took it like a rabbit, and that was the end of my attempt to get Britain's co-operation in a plan which, if it had been carried out, would have brought prosperity to the Middle East and avoided the tragedies which followed—including the disastrous Suez attack a few years later. As I was shortly handing over to my successor there was nothing more I could do,



That was the end of one of the most ambitious attempts to get the nations to collaborate in increasing the food supply of the world for the abolition of hunger and the raising of the standard of living of the people in the underdeveloped countries—the purpose for which F.A.O. had been established.

## CHAPTER 22

### LAST THOUGHTS ON AMERICA

I HAD thought for some time that the headquarters in Washington might be too much under the influence of the United States and we would be freer if we moved to one of the European countries. I considered various countries and would have liked to have seen F.A.O. settled in Copenhagen. One day when I was lunching with the Italian Ambassador, we discussed the advisability of moving F.A.O. from America. He offered to ascertain whether the Italian government would make a gift of a great modern block of offices, which Mussolini in his hey-day had built as the Italian Colonial Office. This would solve the difficulties of providing funds for a new headquarters building in Europe. Later the Ambassador informed me that the Italian government would give the building, fully equipped and free of cost, if F.A.O. moved to Rome. After a good deal of lobbying, I had little difficulty in persuading the F.A.O. council that the move would be beneficial. It would save the rental of the premises we had on the top floors of a Washington building and resolve the difficulty of the colour bar in Washington, which prevented the coloured members of the staff from eating in the ground-floor restaurant. They had been promised that they would be allowed to do so before we took over the top floors of the building, but the promise was not kept.

I left for home in 1948 before the move began; I realised that as the director-general I had failed to carry through the great scheme which had originated in the League of Nations and been approved by Roosevelt and his ministers when they called the Hot Springs conference. I was profoundly disappointed in America, a country for which I had such a great admiration and where I had made so many friends, among scientists and others. Going up the gangway of the ship taking us home I took out my handkerchief, wiped the dust of America from the soles of my shoes with it and threw it into the harbour. America, I thought, had missed a great opportunity for taking up the leadership of a prosperous and peaceful world. I felt I was finished with America which had gone back on

its own great plan which the Hot Springs conference had been called to consider, as it had done when President Wilson had formed the League of Nations to put an end to war, and work for international co-operation to eliminate other world-wide evils. If America had followed through either of these decisions after the two world wars it would have had the support of the great majority of the people of the world.

But this disgruntled feeling did not last long. Since then I have been back to America many times and on all of my visits I made friends with many scientists some of whom were working on the same lines as the Rowett Institute, for example, Dr. Hazel Stiebeling, whose dietary surveys ran parallel with the ones the Institute had been doing in Britain. I was given awards in America for the most important work in nutrition in the international field. I had the honour of being selected, with Professor E. V. McCollum of Baltimore, the doyen of American nutrition research workers, by a panel of American scientists, to receive the Borden Gold Medal with a gift of 1,500 dollars to enable me to stay in America for a week or two to visit my many friends there. Also the travelling expenses of my wife and myself were paid as part of the gift. This was the only honour I ever received, apart from the Nobel Peace Prize, with money attached to it. I received another award jointly with Lord Woolton, British Minister of Food, Professor Jack Drummond and Sir Wilson Jameson, from the American Medical Association for the British war-time food policy based on the nutritional needs of different sections of the community.

I also had the honour, along with Lord Horder, of being made an honorary member of the New York Academy of Medicine, and of the Public Health Association of America which gave me the Grocer's Award for the most outstanding work in the promotion of health in the international field. The American National Farmers' Union, of which Mr James G. Patton was president, awarded me the gold medal, which is given once every three years to the one who has done most to promote the welfare of American agriculture. These, with an honorary degree of Princeton University and honorary fellowships of some medical and scientific societies, make me most grateful to America which, since my first visit forty years ago, I had always regarded as my second home. In spite of my temporary irritation in 1948, I have a warm

affection for the country and its people some of whom I count among my very good friends.

One of the finest characters I ever met was John Winant, American Ambassador to Britain during the war, whom I got to know very well. I invited him to come and give the main speech at one of the Strathcona dinners. He visited me in America when I was with the F.A.O. and we had a long talk about the state of the world. He was extremely distressed by the way things were going. It would have been a good move to try and get him to take over as my successor at the F.A.O. and I always regret I did not do this. Winant was in complete sympathy with any effort to abolish hunger and poverty in the world.

When I was at Princeton at an international conference, I spent part of a day with Professor Einstein and talked about the world and the future. Einstein held very progressive views and he stated in simple language, while sitting smoking his pipe, what needed to be done to save us from war and to build a better world. In spite of his enormous ability, he had a childlike mind and hated giving displeasure to anybody. I was told by a friend of his that his wife had found he had given an order for a lift in his house—of two floors only—which was absolutely unnecessary. When asked why he said that the man who called was so desperately anxious and in need of an order that he could not refuse him.

At a conference in Chicago to consider means of lessening political tensions I met Mr Cyrus Eaton, and with Sir Norman Angel, a Nobel Peace Prize Laureate, accepted an invitation to visit his home in Cleveland, Ohio. Over dinner Sir Norman and Mr Eaton reminisced about their youth when they had both been cowboys—a fascinating conversation for the rest of us to listen to. Cyrus Eaton had a most interesting house, with the best private library I have ever come across, full of books on philosophy and politics. There were two guest houses where visitors wishing to have solitude could stay and have all their meals without going into the main house. This, we thought, was the highest level of hospitality. My wife and I had always preferred to stay in a hotel rather than in the houses of friends. On this occasion we had decided to leave on the Monday morning but when Monday came I would fain have altered my plans and stayed longer, as indeed we

were urged to do. When we were going to Ohio in 1961, Mr Eaton who was in Brussels at the time, cabled his secretary to get in touch with us and ask us to stay in New York till he and his wife would return from Brussels in his private plane to take us for another visit to their home. We went for a short weekend and stayed till Tuesday.

I have had the honour of meeting every President from the time of President Coolidge, with the exception of President Roosevelt, though after his death I several times met and corresponded with Mrs Eleanor Roosevelt and enjoyed her hospitality at her home in Poughkeepsie. I did two radio talks with her, one in London and one at Poughkeepsie. President Eisenhower had an obsession about Communism, like so many other Americans, I fear. Nothing could be done until Communism had been destroyed. As he declared that he was also against war, I wondered how he thought this was going to be achieved.

Even after the collapse of the food policy plan, the idea of international co-operation in a world development project, beginning with food for the mutual benefit of all nations, was not altogether forgotten. President Kennedy, with whom I had the great honour of a long interview, in which we talked about international affairs and the ways to attain world peace, stated at a meeting of the United Nations General Assembly that America would support a food policy which would give every child in the world an adequate diet.

After I returned from America in 1948, one of the leading Russian Foreign Office officials wanted me to go to Moscow with him to interview Field Marshal Stalin who he assured me would take the initiative in inviting all nations to join in a world food policy. I was reluctant to go, however, because I thought at that time that if the Soviet Union took the lead, Britain and America would refuse to co-operate. Under Mr Khrushchev, there is no doubt that Russia would have been glad to join in some sort of food policy. We must wait and see what happens under the new leaders. The Labour Party had in their 1964 election programme the promotion of a World Food Board. Now they form the government with Harold Wilson as Prime Minister. If only they would take the lead, and America under President Johnson would follow

the line taken by President Kennedy, there should be no difficulty in getting the support of the Soviet Union. Then the great plans envisaged by the two great Presidents, Roosevelt and Kennedy, will be realised and justify the efforts so many scientists have made to bring about international co-operation for the benefit of the whole human family.

## CHAPTER 23

### LAST THOUGHTS ON F.A.O.

THE movement for international co-operation did not stand still when the plans for a world food policy were squashed by Britain and America. In 1949, President Truman brought out his Point IV plan: 'A bold new programme for making the benefits of our scientific advances and industrial progress available for the improvement and growth of undeveloped areas'. And in 1950 the United Nations held a Technical Assistance Conference at which about fifty nations agreed to contribute about 20,000,000 dollars, of which F.A.O. got 29 per cent, the largest share. Other recipients were the World Health Organisation, the United Nations Educational, Scientific and Cultural Organisation and other international organisations. Britain, not to be left behind in the good work, set up the Colombo Plan in 1951 for co-operative development in South and South-East Asia.

It would have been better if all the technical advisers had been controlled by one organisation, preferably F.A.O., which, with its regional offices, had the best idea of what each country needed. But they all seemed to act independently, which caused confusion and overlapping. When I was in Pakistan in 1951 as chairman of a committee advising the government on modernising agriculture, I found three technical advisers each from different organisations drawing up recommendations for the poultry industry. None of them knew that there were another two on the same job.

The need for technical assistance in the underdeveloped countries was exaggerated. It was not recognised that in some countries like India and Pakistan there were agricultural research stations and agricultural departments in the universities with efficient staff, many of whom had been educated in European or American universities. They knew more about the principles of agriculture than most of the advisers sent from America or Britain—often by no means the best men in the field. Further, the native experts had a knowledge of soil and climatic conditions and of administration and social affairs which had to be taken into account when considering what measures were feasible. When visiting Pakistan

and India after I left F.A.O. I went into villages with an interpreter to find out what the peasants were capable of doing. I found that they knew what was needed to increase production but were too poor to buy the fertilisers, modern implements, pumps for irrigation and other industrial products needed. I repeat: what the food deficient countries need is not so much technical assistance as foreign credits to import the essential industrial products and set up those industries which would enable them to produce them themselves.

The foreign technical advisers were not always very discreet, for example some of the super-patriotic Americans disregarded the susceptibilities of the natives. One, a very nice man, whom I got to know well, walked into the Agriculture Department in Pakistan where the head was a graduate of Edinburgh University and had an assistant who held a doctorate from Cambridge University, and told them that all they needed was the American 'know how' and he was here to give it them. Such an attitude did not endear the agricultural technical assistant to the native-born experts, but they had to restrain themselves, because India and Pakistan were looking for financial aid from America. I read in a leading article in one of the two main Indian newspapers published in English that 'these foreign experts must be tolerated with patience'. On their report might depend the financial aid the country so urgently needed.

Since 1949, the United States, in addition to being the biggest contributor to F.A.O. and other U.N. agencies, has spent enormous sums in foreign aid. In 1963 it was four to five thousand million dollars. Several times in public speeches in America I said that the American people would never get any thanks for this aid, because the receiving countries knew that the aid was given, not so much in their interest as to stop the march of Communism in the interest of America, and a considerable part consisted of arms and other military aids. If instead of listening to the old men like Chiang Kai-shek and Syngman Rhee who were on the way out, they had listened to the students in the universities and other young people on the way in, they would have learned that the people in those countries which were having military aid pushed on them, were not prepared to shed a drop of blood to stop the march of Communism—nor, on the other hand, would they make



any move to bring about the collapse of the capitalist West, in the interests of Russia. The young people thought that the attempts to force their country to be anti-Communist or anti-capitalist were insulting to their newly won freedom of which they were intensely proud. The Russians, more subtle than the Americans, gave aid with no obvious political strings; their technicians live with and like the common people and gain their friendship. I have ventured to criticise some unfortunate features in the aid programme but in many respects the technical assistance, especially in industrialisation, and the financial aid have been of great benefit to the poor countries. The service rendered by nongovernmental organisations, for example the Rockefeller and the Ford Foundations and the Friends Service organisation in small projects undoubtedly have done much to alleviate poverty in local areas.

The latest organisation in this field is the F.A.O. Campaign against Hunger. It is hoped to raise a hundred million dollars from governments as a special fund, to syphon off food from countries with a surplus and give it to the food deficient countries. The main value of this Campaign can be to rouse the conscience of the people, and pinpoint the failure of the United Nations to deal with poverty in the midst of abundance, the failure to get governments to realise the danger of the growing gap between the poor and the wealthy nations. The explanation of this growing gap was given by Dag Hammarskjöld, late Secretary General of the United Nations. He pointed out that a fall of 5 per cent in the average of their export prices for the poorer countries is approximately equal to the entire flow of capital which they receive, not only from International Bank loans but from all other public and private loans and government grants. The prices of some of the staple primary products have dropped not 5 per cent but from 10 per cent to 47 per cent to the benefit of the wealthy countries importing them, but to the detriment of poor countries exporting them. That, together with populations increasing at a rate, which in some countries will double the number of people in less than thirty years, accounts for the growing gap between the underdeveloped and the industrialised countries.

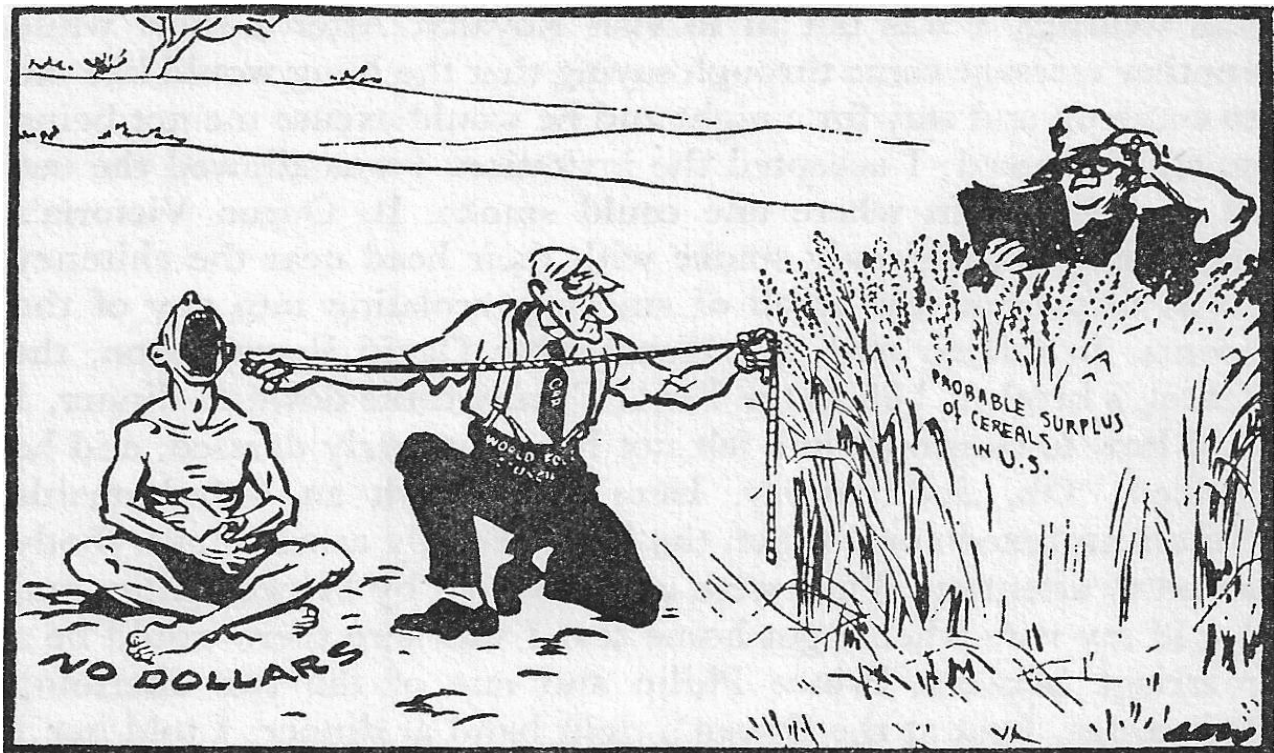
As both Russia and China have shown, it is possible for a country with adequate natural resources and a totalitarian

government, able to plan ahead and to mobilise all the people to carry out the plans, to bring about rapid industrialisation with an increase in wealth and a rise in the standard of living, without any aid from wealthy countries. It would be an interesting exercise for economists to try to figure out what would happen to the Western economic system if the primary producing countries were able to join forces and insist on getting a high enough price for their primary products to enable their workers to get a wage equal to that of workers in the wealthier countries to which they sell their products. In this rapidly changing world stranger things have happened in the last fifty years.

In 1962 an international league of agricultural producers reported that food production would need to be increased by 103 per cent by 1980 and by more than 260 per cent by the year 2000 simply to eliminate hunger and provide the medical improvement needed in the diet of children and mothers. It is becoming increasingly evident that all that has been done and is being done is insufficient to eliminate hunger and poverty from the world, which is getting worse. In 1963 the increase in world population exceeded the increase in world food production. It has been estimated that to make a sizeable dent in the hunger and poverty of half the population of the world something like the equivalent of ten thousand million dollars a year would be needed. That is about 10 per cent of the total military budget which the world spends on armaments and the space race. Since leaving F.A.O., I have tried to promote a policy which would bring about a situation where the two greatest evils in the world today—a nuclear war and the revolt of the poverty-stricken coloured half of the population against the domination of the white man—would cancel each other out. If Russia and America, the two dominant powers, would agree to cut their military budgets by, say, 10 per cent and devote half of the saving (five thousand million dollars in the first year) to an international development fund, beginning with increased production of food to abolish hunger, and the other half to lessen the intolerable burden of taxation, the world might be on the way to economic prosperity with full employment; any such co-operation for the mutual advantage of all nations would be an important step towards world unity and permanent peace. Another 10 per cent

reduction in mass expenditure in the second year would provide the funds needed for bringing about a great expansion of world markets to keep pace with the increasing capacity for production.

The snag about this policy is that it would need to be carried out by business men; but the politicians who control foreign policy will be reluctant to hand over their powers to business men. As the policy of Louis XIV of France led to the collapse of the governing class in the French Revolution, so the lack of vision of the politicians concerned with international affairs may bring about a similar collapse on a world scale today. The people of the world must unite in a demand for disarmament and insist that the money saved should be devoted to the abolition of hunger and poverty. If all nations could be persuaded to co-operate in this aim it would be the first step to world unity, economic prosperity, and permanent peace.



PROBLEM OF OUR TIME: FROM LAND TO MOUTH

A cartoon by David Low.

## CHAPTER 24

### VISIT TO THE ROYAL FAMILY

WHILE director-general of the Food and Agriculture Organisation, I had many opportunities of meeting both political and economic leaders in different countries: scientists and business men. One of my most interesting meetings was with the British Royal Family.

Once, on my way to an international conference in 1947 at Geneva, I came home for a couple of days. There was a telephone message from Balmoral where King George VI and the Queen were staying, asking me to come and stay for a weekend. I replied that I was on my way to an important meeting in Geneva and was sure that His Majesty would not wish me to neglect this duty. Further, as I was travelling light, with no clothes except what I was wearing, I was not fit to visit Royalty. After a short while another message came through saying that the King would like me to come up and stay for a night and he would excuse me not being suitably dressed; I accepted the invitation. I was allowed the use of a sitting-room, where one could smoke. In Queen Victoria's time visitors could only smoke with their head near the chimney so as to prevent the smell of smoke percolating into any of the rooms. In talking with the Honourable David Bowes-Lyon, the Queen's brother, before the Royal Family came down to dinner, I said how uncomfortable I felt not being properly dressed, and he replied, "Oh, don't worry. Here am I with an unfashionable American tuxedo on." When the Royal Family came in everybody stood to attention. They were accompanied by Prince Philip, and I told my wife when I got home that I was sure there would be a marriage between Prince Philip and one of the two charming Princesses. I sat at the Queen's right hand at dinner. I told her I had been in Canada when she was there. In Quebec she had given a speech in French which I could follow and which was greatly appreciated by the French-Canadians; with a Scots accent she spoke not in Parisian French, but in the old French which was like that spoken by the French-Canadians.

When the ladies retired I was asked to go and sit beside King

George, with whom I got on very well. He asked me to come and see him next morning. After talking a little about the world food situation he asked me if I was in favour of nationalisation of the land. I replied that I was not. I owned a farm and thought I could manage it just as well as any civil servant. I was tenant of another farm and I could at any time go up and demand to see the proprietor, but if the land were nationalised I would never be able to talk over anything with the civil servants. At this he seemed greatly pleased and began to discuss farming, telling me about the farm he had at Sandringham and the improvements he was making for the good of the farm and his workers. He was well informed on farming. I left with an increased admiration for an honest, highly intelligent man who, I believe, would have been happier as a country squire than in the more harassing job of being a King. I also had the greatest admiration for the Queen, now the Queen Mother, a woman of great charm and common sense, probably the most popular Queen Britain has ever had. Many would have liked her to be made Queen when her congenial husband, George VI, died. In 1947 when I was in Washington I was proud to be asked to make the final speech before the King spoke in the traditional Christmas Day broadcast.

Several times after this, I have had talks with the Duke of Edinburgh. He had been educated at Gordonstoun where he was taught all the manly virtues and the art of leadership. When he was president of the British Association he gave a presidential address, which he wrote himself. It showed a wider vision of the changes being brought about by the great advances in science than many scientists seem to have. I went to Oxford University to hear him speak at a meeting, which had been convened by him to consider relationships between management and workers. He was equally brilliant on this subject. He is obviously a man with a capacity for original thought, with a vision of things to come, a splendid speaker, and with a very pleasant personality. It is a great pity that he was not given a big job for which he is well fitted. I once suggested to a Cabinet Minister that as education was needing to be re-examined in the light of the vastly changed conditions from those of the nineteenth century, the Duke, as Chancellor of Edinburgh University, should be appointed chairman of the chancellors and principals of other universities in Scotland to

consider the present position and put forward new proposals. Scotland would have been big enough to handle, but the conclusions arrived at by such a committee, with the Duke of Edinburgh as chairman, could have been applied to the whole of Great Britain. If that had been done ten years ago, education in Britain would not have suffered from the hurriedly drawn up plans and changes, the results from some of which may not prove to be as beneficial as their supporters assumed.

## PART VI

# A Fresh Start 1948

## CHAPTER 25

### THE BUSINESS WORLD AND THE NOBEL PEACE PRIZE

WHEN my wife and I got back from Washington in 1948 after handing over to my successor as director-general of F.A.O. I felt very depressed. The movement had failed to get the nations of both East and West to co-operate in developing the resources of the earth for the abolition of poverty, beginning with increased food production to meet human needs, with a rapid expansion of international trade, and the beginning of a new era of peace when the nations would work together to their mutual benefit instead of arming for war for mutual destruction. Though I believed that the United Nations was the hope of the world, I had little faith in its developing its proper functions in the near future. Instead of following the terms of the charter which began, 'We, the people of the world . . . ' in considering what the people of the world needed and wanted, it had become a political assembly with the same kind of political outlook as the Democrats and Republicans in America or the Conservative and Labour Parties in Britain. Each nation put forward its Foreign Office politicians and voted for its own interests with little regard to the interests of the people of the world or, indeed, for the people of their own country. There are still people in both Britain and America living in abominable slums while a fraction of the money spent in expanding national interests in international affairs would relieve their poverty and misery.

Realising that in the near future there was no hope of making F.A.O. the spearhead of a movement for world unity and peace, I decided to go into business and make some money. Before the Second World War started I had made plans to retire from the Rowett Institute in 1940 and go into business. This was necessary because scientists are so badly paid that it was impossible to save much money. I have enjoyed my work in the business world. Business men are like scientists; they continually change their minds and their theories in accordance with further facts as they arise. Business men play the game according to the accepted rules of business



and within the limits of these rules which, I would point out, are not always for the good of the community. For permanent success they are—and have to be—honest. At board meetings the facts so far as they can be ascertained are studied, and without any long speeches decisions are quickly made in accordance with these facts. The methods in science and business are thus totally different from politics where the facts are often ignored if they do not fit into the party programme, and the speeches are made not to reveal the facts but, like high-pressure salesmanship, to trade promises for votes.

Within two or three years, I had a bigger net income from directorships than I had ever had in scientific research, and by successful speculations on the Stock Exchange, I had made sufficient untaxed capital gains to enable my wife and me to live in comfort and have a surplus for travel. All this work involved intensive study of market trends, government reports, and financial news. On one of the boards I met David Finnie, a chartered accountant and graduate of Edinburgh University, which gave him a wide intellectual interest. I enjoyed and profited by talks with him on world affairs. He told me that when a young man he had left Glasgow for London. By the time he had got a small flat to live in and an office (of one room) in the City he had only left. He spent this in taking his wife out to a gorgeous dinner. By his ability he became the head, with many partners, of an important chartered accountancy business. In the Northern Dairies Company, an English company, which I joined and of which I later became president, the three chief directors were Mr. Alec Horsley and Mr. and Mrs. Stieger. Alec Horsley, the chairman, is probably the most shrewd, far-seeing business man I have ever worked with. His political views are exactly like my own and our friendship has continued and grown. His house is one of the few private houses that my wife and I will stay in. Normally when away from home we much prefer to live in a hotel where we can do what we like. Mr Stieger is a genius in mechanical matters. Some of his inventions for the firm were exploited by engineering companies paying royalties to Northern Dairies.

There was a big improvement in my health after I left F.A.O. for the business world. At F.A.O. I was so obsessed with its work and worried by its problems that I did not enjoy my food. One

day, my friend Dr. Boudreau called to see me. He thought I was looking ill and, unknown to me, asked our mutual friend Dr. Russell Wilder, the nutrition expert of the Mayo Clinic, to take a look at me. Dr. Wilder told me I was suffering from vitamin deficiency and advised me to take vitamin capsules, and to watch my diet. The idea that someone who was regarded as a nutrition expert should be suffering from food deficiencies was a source of great amusement to my friends! Taking the vitamin capsules was easy, but getting the freedom of mind from the worries of F.A.O. was more difficult. In the last year with F.A.O. the feeling of frustration at having failed to get a world food policy affected my health. Soon after beginning the more congenial and successful work of business I rapidly recuperated, and looked ten years younger than when I left for home in 1948. My case was not unique. In Britain and America where the effects of the mind on the body have been studied, worry, frustration and other psychological factors have been found to be the sole or predisposing cause of half the illnesses of hospital patients. This probably applies to all highly industrialised wealthy countries. Centenarians are usually people who live in rural areas remote from the hurry and worry of city life.

## THE NOBEL PEACE PRIZE

One evening in the autumn of 1949, as my wife and I were dressing to go out for dinner, my banker rang me up to tell me that I had been awarded the Nobel Peace Prize. I thought he was joking and replied in the same strain, saying that it was very fitting that a Scottish farmer should be added to the list of famous men who had put forward proposals for world peace. When he rang off, however, the line kept buzzing with one reporter after another wanting to know what I was going to do with the award, which amounted to about £10,000. I felt that the award was not so much to me personally as to a representative of the movement for peace through international co-operation and I replied that, though I had as yet no clear plans, all the money would be devoted to promoting the great cause of world unity and peace.

My wife and I went to Oslo to receive the award. The King of Norway and other leading men were present, and the chairman

of the Peace Prize Committee, Mr. Gunnar Jahn, in presenting the award which consisted of a diploma, a huge gold medal and the cheque, made a wonderful speech which affected me deeply. I asked him later if I could have a copy of it, but he said he had no copy as he had spoken *ex corde* without a written speech or even notes. I gave half of the money award to the National Peace Council to procure a building in London to house the various separate movements for world government and peace, so that under one roof they could work together in a more united movement. A young man who had been left some money by a relative who had been a strong supporter of the National Peace Council covered my £5,000 with another £5,000. With the £10,000 and a mortgage a building was purchased in St James's Street, London.

I had reluctantly agreed to become president of the movement for World Federal Government, due mainly to pressure from Mr. Stringfellow Barr, head of the American movement, and Henry Usborne, a Labour M.P. who devoted all his political activities to promoting world government. I went to the new headquarters of the movement in Paris to see what kind of organisation it had, and found it was in debt, so nearly £2,000 of the prize was devoted to clearing up this deficit and giving it a new start. The rest of the money went in smaller grants to various organisations, but whether or not it did much good it is difficult to say.

On our way home from Oslo, we called by invitation at Copenhagen and were entertained there to a dinner by the editors of the *Politiken* newspaper, a strong advocate of world unity and peace. We then went on to Paris where we were met at the station by a government car with motor cycle outriders and taken to meet President Auriol who was a strong supporter of the movement for world government and had written a book on the subject, an autographed copy of which he gave me. After an interesting interview in which he spoke English and I spoke French, to our mutual satisfaction and amusement, he got me to address a group of members of the Assembly and then do a television programme. France, which had been a strong supporter of the movement for a World Food Board, later conferred on me the award of Commandant of the Legion d'Honneur. These two awards went far to dissipate the feeling of frustration for the failure to carry out the world food policy. I was also given a dinner at the House of Commons by

my friends in the British world government movement, a gesture which I greatly appreciated. I still have the menu with the signatures of those present. The Lord Mayor of London was there and speeches were made by representatives of the three political parties, Herbert Morrison for the Labour Party, Clement Davies for the Liberals and my good friend Walter Elliot for the Conservative Party. In the same year, 1949, I was awarded the Harben medal by the Royal Institute of Public Health, a medal which is presented every three years to the man they consider has done most to promote health in Great Britain.

Since then I have devoted a good part of my time and whatever funds I could afford to the promotion of the various national and international movements for world government and peace, and to propaganda for F.A.O.

## WORKING FOR WORLD GOVERNMENT

When the war in Europe ended with the surrender of Germany on 8 May 1945 there was a great outburst of enthusiasm for a world government which would put an end to war for ever. A Parliamentary Group for World Government was formed in Britain, a Parliamentary Association for World Government with Members of Parliament from most countries in Europe, and the World Federal Association, which was strong in America as well as in Europe. I was and still am president of the Parliamentary Group, and was president of the other groups until I went to America in December 1945. I am also president of the National Peace Council. At the annual conference of these international groups, I came into contact with many interesting foreign politicians including Count Sforza, Foreign Minister for Italy, who took me to the opera in Rome, and President Auriol of France.

There were other groups working for the same cause. One of them arranged for Anker Kirkeby, a Danish journalist and author, a woman from the Indian Embassy and myself to visit some towns in Europe during the summer of 1949 to speak at demonstrations for world government. The demonstration in Copenhagen attracted such a huge crowd that there was no hall big enough and it was held in a public park. The demonstration most vivid in my memory was in Aix-la-Chapelle. The meeting had been called for

seven o'clock. Our plane was delayed and we did not arrive till nine o'clock expecting that the meeting would have been dispersed by then; but when we arrived we found the hall packed with more than a thousand, mostly young, people. The meeting had been kept going with music and local speakers. When we appeared there was tremendous applause, and when each of us spoke, every point we made was greeted with applause. I have never attended such an enthusiastic gathering. These young people were sick of war, and willing to make any sacrifice for the cause of peace.

Next day, in passing through Cologne to get our plane for home, we were taken to the Town House to meet Dr. Adenauer, who was then mayor. When we told him of our meetings and of the enthusiastic one held on the previous evening he listened in silence and then said a few words, which seemed to show cold contempt for our idealism and keenness. We felt as if there were icicles hanging from the ceiling. I left with the feeling that Adenauer was against Hitler because he had lost the war, and was more concerned with regaining Germany's industrial and military power than in peace; he was not interested to free the world from war and poverty. I thought he was a man of great ability and tenacity of purpose but very different from the young people we had met. I have been to Germany once since, to an international conference, and left with the same uneasy feeling I had after meeting Adenauer. I may be wrong, but I still distrust Germany, and am opposed to the Common Market, which, if Britain joined, would bring this country within the control of a European group dominated by Germany.

Later I became connected with another enthusiastic group. In June, 1950, as Chancellor of Glasgow University my wife and I were receiving the guests at a social evening and dance at the Commemoration Celebration. An attendant came in and told me that a Frenchman had arrived from Paris wishing to see me on some urgent business. It was M. Sarazac. He told me that a French group working for international friendship had embarked on a 'mondialisation' project to get French towns or provinces to join with municipal authorities in other countries, especially Germany, for joint consultation on matters of common interest. A demonstration was to be held at Cahors in France to get the project going, and M. Sarazac wanted me to go to speak at it. I was reluctant to accept because I was spending so much time on such

movements. My wife, however, was so impressed by M. Sarazac's sincerity that she insisted on my going. The demonstration was on a huge scale. The town had bands and banners out, and with a loudspeaker I addressed a crowd of many thousands of people enthusiastic for world friendship and peace.

I went again to another mondialisation demonstration, this time with representatives from other countries including Germany. When it was over, a dinner was held where I was presented with a lot of presents, including garlands of flowers. I said I could not take these home, but my hosts packed them in a big cardboard case and sent me off in the train with it. When I arrived in London the customs official wanted to know what was in the case. I said I couldn't tell him, but I didn't think there was anything on which customs duty should be paid though he could open it and see. He did open the case and there, amongst the bouquets and presents of no great value, was a bottle of brandy! I assured the official that the box had been packed when I was at a public dinner and I did not know the brandy had been put in, but I was glad he had opened it. A senior official was sent to assess the duty payable, and he recognised me and asked where I had been. When I told him, and explained the presence of the brandy, he told his subordinate to pack it all up again. He then took me, along with the case, and saw me on the plane for Glasgow. He, like myself, was working for world government.

I was later given another illustration of the friendship and community of spirit among different nationalities stronger than the bonds of nationalism. At an Economic Conference in Moscow in 1952, I had signed provisional trade contracts for the purchase of British goods subject to the permission of the Board of Trade to export them to China. There was a long delay in hearing from the Board, and the Chinese threatened to pass the orders on to Germany. Mr. Buckman, a British business man who also had provisional orders for China, went with me to meet Chinese officials in East Berlin to try to induce them to delay cancelling the orders as we hoped soon to get the necessary permit from the Board of Trade. Mr. Buckman had a visa and got through all right. When I, who was further down the queue, presented my passport, the official looked through it and said 'No visa. You cannot get past.' When the crowd were all through, I went back to him to ask

the way to the British Embassy for help to get a plane back to London. The Embassy official looked up at me and said, 'You are John Boyd Orr?' 'Yes,' I replied. 'World government,' said he. 'Yes,' I said. He smiled, shook hands with me and asked what my difficulty was. When I explained, he took my passport, put a stamp on it and passed me through. I found the same friendship among world government supporters in all European countries, and in America, Japan and India.

These international organisations, in addition to propaganda, perform a useful service in appointing committees to study problems of disarmament, or the reorganisation of U.N., and they send the results with recommendations to the various governments and the United Nations. In my work with them I became associated with some distinguished men I would not otherwise have met. In Britain I had the good fortune to get to know, among others, Lord Attlee, whom I had met occasionally when he was Prime Minister, and Bertrand Russell. I often travel with Attlee going to world government conferences. He mixes with us with none of the swank, which might have been expected of one who had been Prime Minister at a time when he had to undertake the difficult task of putting the country on an even keel after the war. I deeply regret that when I became director-general of F.A.O., I did not send a note to Mr. Attlee, then Prime Minister, outlining its objectives and asking for an interview. Had he been informed, I am sure Britain would have backed a world food policy, as Harold Wilson has pledged to do now, and the course of history might have been altered for the better.

Bertrand Russell, I have met in world government groups, in the Athenaeum Club and in his own home. He has a brilliant brain. He made revolutionary changes in mathematics and philosophy, and, unlike most men of genius, can write the most profound wisdom in terms the common man can understand. He is a Socialist. When he succeeded to the title of Earl Russell, he gave over to the state the estates he inherited, and made his living by university lecturing and writing. He is an individualist and broke off from the main groups working for world government to form his 'Committee of 100' which I thought a mistake. When he was tried for subversion and imprisoned, I joined his committee to give what little support I could to a man I admired for his great intellectual

abilities and his courage. I induced him to appear in the House of Lords to make a speech on the danger of war, and I appeared on a television programme to give a boost to his monumental work *The Wisdom of the West* published in 1959. At ninety years of age he is still fighting for disarmament and peace under a world government.

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Among other movements of less world-wide importance with which I have become connected, one of the most interesting is the Faber Foundation. One day while we were staying in Vienna a gentleman came to see me. He wanted me to go and spend a holiday, free of expense, at a castle he had. He told me that his name was Axel Faber and that his Foundation was arranging to provide a holiday for leading scientists and others who had done important work in promoting human welfare and had places in several countries where those chosen by the Foundation could have a double room, with meals, for the equivalent of ten dollars, but exclusive of tips, taxis and other extras which could not be budgeted for. He looked a highly intelligent and honest man, but I could not bring myself to believe that there was really an international organisation of this kind. He asked me if I had thought of going abroad for a holiday, and I said that I had planned to go to the Caribbean area for a fortnight in the winter so that we might get some sunshine. He asked me when we were going and I told him the date we intended to leave. We left Vienna thinking no more about the matter, but sometime before we were due to leave for our holiday I received a letter from him giving an itinerary with a stay of a week in four different parts of the Caribbean, together with air tickets for the journeys. He said he had advised the aeroplane companies and the winter resorts we would be staying at to give special attention to what he termed 'a world-wide figure who had made a great contribution to human welfare'. When we arrived at Prestwick Airport at the beginning of our journey, someone met us and called out leading officials to meet us and wish us bon voyage. When we arrived at the various places there was always someone to meet us as if we were people of great importance. We met other people who had been given the same



luxurious holiday at a cost they could not afford. It was a wonderful holiday which did me a lot of good, and the cost to me was only about £300. Enquiring about the charges at the different places, I estimated that the holiday would have cost nearly £2,000. I wanted to make a token contribution as part compensation but Mr. Faber told me, 'You will not. I will sting the wealthy for the money for the fund'. The Foundation must have been of great benefit, especially to scientists past middle-age who never acquired sufficient money to take a month's holiday with leisure to think. Axel Faber, a man of great ability and vision, is one of the outstanding benefactors of our time.

## CHAPTER 26

# INVESTIGATIONS INTO OTHER COUNTRIES' FOOD AND AGRICULTURAL PROBLEMS INDIA

THE Indian sub-continent may one day play a decisive role in world affairs. The population (India plus Pakistan) is nearly five hundred million, about a sixth of the world population. There is no reason to believe that the Indians and Pakistanis are innately inferior either physically or mentally to the inhabitants of the wealthy Western nations. Mahatma Gandhi, Pandit Nehru, Krishna Menon and the many others who have had the benefit of Western education are intellectually equal to the leading politicians in Europe or America. The people, however, are among the poorest in the world. Owing to the lack of adequate food and other physical necessities of life the average expectation of life at birth is only about thirty years, about half that of the rich industrialised countries. When my wife and I visited Bombay, Calcutta and Madras in 1929 on our way to Australia we were aghast at the poverty, and the child labour in some factories reminded me of what I had read of conditions in the industrial towns of England in the hungry 1840s. Both India and Pakistan are now beginning to be industrialised, and are building up their universities and technical schools. With strong government and the fulfilment of the five-year plans, so popular with underdeveloped countries, both India and Pakistan should be able to industrialise as rapidly as Japan or Russia did.

Meantime, however, the most immediate problem is the shortage of food. The modernisation of their agriculture has been far too slow, and the increase in food production has hardly managed to keep pace with the increase in mouths to be filled, amounting for the two countries to nearly ten million a year. Were it not for the wheat and other foodstuffs sent from other countries, especially by the United States on very generous terms of payment, the food shortage might well be disastrous.

In 1949, a year after I had left F.A.O., Sir Girja Bajpai, who had

been one of the most helpful members of my council and had become Foreign Minister for India, asked me to come to India to help with the development of their agriculture, and especially with the production and distribution of food. I went with my wife, who always accompanied me on my travels. We stayed at the home of Pandit Nehru, formerly the residence of Field Marshal Auchinleck, and we were given a room for an office with Krishna Swami, a learned and able man who had represented India on F.A.O. conferences, whom I had asked to co-operate with me. Living in Nehru's household was a most interesting experience. The atmosphere was highly intellectual but rather austere. The meals, eaten in Indian fashion, were simple but adequate for health, with no wine or sumptuous rich foods. For the three weeks we stayed there, we were teetotal and non-smokers, except in my office, but we suffered no ill-effects from the deprivation of luxuries; it was a reminder to me of the simple but healthy regime of my early home life.

I learned a great deal from Pandit Nehru about the extraordinary movement of non-violent disobedience, which had won freedom for India. Much of it had never appeared in the British press. Nehru suffered imprisonment for nine years under abominable conditions, as did some of his relations, but the movement succeeded because government by the British became impossible. Conditions had changed since 1919 when General Dyer at Amritsar ordered a force of a hundred soldiers to fire on 20,000 unarmed natives gathered for a meeting in a big walled garden with only a small exit, killing 387 and wounding 1,100 before their ammunition ran out. This act of violence marked the beginning of the end of British rule in India and the colonial part of the British Empire. Some British officers refused to order troops to fire on the great processions of natives marching to the coast to evaporate sea water to get salt and so evade the salt tax. They were cashiered and sent home. The Gurkhas, who were brought in to impose law and order said, 'We are soldiers. Give Gandhi's followers arms and we will fight, but we do not murder unarmed people.' In 1947 Prime Minister Attlee wisely gave freedom to India. This decision roused little opposition even from the most extreme reactionaries, who had realised that the day was past when India could be governed by the India Office in London.

Nehru seemed to cherish no ill-will or hard feelings against the former British rulers. He had been educated at Oxford and imbibed a good deal of English ruling-class ideas. His high intellectual ability combined with integrity and courage made him undoubtedly one of the great men of our time. He could have presided successfully at United Nations Conferences or meetings of the Security Council. His prestige held India together. If one might venture to criticise, he was too much influenced by the ideal of democracy. The illiterate masses of India are hardly ready for democracy. A benevolent but tough dictatorship with, for the time being, less political idealism and more business realism could push through the essential industrialisation at a faster rate. At the time of my visit in 1949, and even now, India's most urgent problem is food shortage. A rapid development of agriculture and the essential allied industries should have had absolute priority in government planning. If all the people could be well fed they would co-operate contentedly in further development.

This brings me to the job I had come to do. I visited a number of villages to get an idea of the state of agriculture and decide what measures for increased production would be immediately successful. I was so surprised at the intelligence of the peasants that I told Nehru he did not need the advice of any foreigner. If the government would concentrate on getting for the peasants the things they wanted and could use immediately, there would be a rapid increase in production, which would give time for long-term plans. Then I consulted, first, Indian experts, some of whom had been educated in Europe and America and some in their own universities and research stations and secondly some of the leading business men including Sir Shri Ram, an able man with whom for years we exchanged New Year greetings cards. The suggestions and criticisms of the business men were most helpful in clarifying my ideas of what could be done.

After three weeks of intensive work, I drafted a report suggesting simple measures for the earliest possible initial increase of production and outlining a long-term policy. The two most important recommendations were first the reorganisation of the agricultural administration, with a director given dictatorial powers, and after the programme had been approved with the provision of the necessary funds, the setting up of a deputy director in each province

controlling organisers in districts and, as soon as they could be trained, leaders for villages and groups of villages. This organisation would have enabled orders from headquarters to be carried down the line to the villages. I had met some of the younger people and was sure that they could be inspired with patriotic zeal, to fight India's war against hunger. The means for inducing the peasants to carry out the measures dictated from headquarters were, so far as they could be adjusted to Indian conditions, the same as those which had been applied in Britain during the last war—that is, such detailed control by the government that a farm worker could not leave the farm where he was working to go to another farm without the permission of a government official. This rigid government control led to an increase of nearly 100 per cent (reckoned in calories) of home produced food.

The other recommendation made privately to Nehru was that he should himself go to America and ask for a supply of several million tons of nitrogeous fertilisers a year until India had factories to produce sufficient, and for certain other equipment on deferred payment, and go to London and ask for a few thousand Ferguson tractors which I knew could be made available because I had recently opened a new depot and had seen hundreds of them waiting for export orders. I suggested that in America he should use the argument that hunger in India was an invitation for the advance of Communism, and I was sure he would get what he wanted. If his needs were met from America, Britain would follow with its supply of tractors, pumps and other equipment. In submitting the report I said that if the government approved of the suggested new organisation and the other main recommendations I would be prepared, if invited, to come to India and act in any capacity to help carry through the plan for the speedy increase of food production. Nehru was abroad somewhere when my report was finished. I left it for him to consider on his return. He evidently did not approve of it for no invitation came to go back to India. When in India I had been enthusiastic about helping to carry out the plan suggested, but when I got home I was doubtful of the advisability of leaving all my other interests for what would have been gruelling work in the assault on the Indian food shortage. I was interested later to learn that a Rockefeller commission had recommended a somewhat similar dictatorial organisation, and I

had the pleasure of receiving a letter from one of the younger members of the agricultural service saying that they regarded my report, of which they had a copy, as their guide in 'The fight for freedom from hunger in India'. I was again invited to India by the Minister of Education in 1953 to preside at a conference of leading intellectuals from different countries, including Ralph Bunche of the United Nations, and Pastor Niemoeller from Germany and others of international reputation to consider the impact of Gandhi's idealism on international affairs. The foreign delegates were accommodated in the town house of the Maharajah of Hyderabad, a beautiful building with well-kept grounds, almost equal in grandeur to Buckingham Palace, which the Indian government rented for occasions like this. The papers read at the conference were most interesting. Those submitted by the Indians were brilliant but, as I pointed out from the chair, had little bearing on how the enormous powers of modern science could be applied to the elimination of poverty with its misery of hunger and preventable diseases. It was an inspiration to meet leaders of thought from other countries. If the great powers would hold such conferences they might make a great contribution to a realisation and solution of the problem of passing from the old world of scarcity to the new age of abundance for all.

## PAKISTAN

While we were in India in 1949 we received an invitation to visit the President of Pakistan, and as soon as the report to the Indian government was finished, we set off by plane from New Delhi to Karachi accompanied by Krishna Swami, my secretary while in India. We arrived at the President's residence in the evening and were received by a British officer, an A.D.C. to the President. He showed my wife and me to a suite of rooms, and after making all arrangements for our comfort warned us that we would be dining with the President and as he was a Moslem there would be no wine. That, he said, need not worry us much as there was an ample supply in our sitting room. He opened a cabinet, which was well stocked with many different kinds of wine, liqueurs and a bottle of whisky. As we had been completely teetotal for three weeks and in any case had wine on the table at home

only on special occasions, the lack of wine at dinner was no hardship.

At dinner, the conversation was limited at first to some noncontroversial remarks on world affairs. We had just come from India with which Pakistan was quarrelling about Kashmir, and discussion of the politics of the Indian sub-continent, on which it would have been interesting to have the President's views, was taboo. Both Krishna Swami and the President came from Madras which they seemed to regard as the centre of light and learning in India, so that they got on very well. Their conversation was both interesting and amusing. Next day, after a talk with the President, we called and paid our respects to the Prime Minister, and having with regret said goodbye to Krishna Swami, one of the most learned and amusing men I have ever met, we set off by plane for home.

In 1952 the Pakistan government asked me to go out and help with their food problem, offering me a handsome fee. I replied accepting the invitation to go but refusing a fee. I said I would be glad if the government would defray the travelling expenses of my wife and myself while in Pakistan which was the financial arrangement I had made with India. When we arrived at Karachi in March 1952 I found that the government was really keen and willing to take measures to solve the food shortage which was acute. A committee was formed of about a dozen people who I thought would know most about the agricultural and food problems. It included Sir Roger Thomas, the manager of an agricultural company, and Sir William Roberts who owned a big agricultural estate. They had both been in the Indian Civil Service and left it to farm on their own and had evidently been very successful. The others were government agricultural officials, some of whom were graduates of Edinburgh University which, when they were students, was probably the best school of agriculture in the world, a number of wealthy Pakistani farmers and the chief civil servants of the Treasury. The man given me as secretary was Shafi Niaz, a graduate of Cambridge University who had done post-graduate research for which he had been awarded a doctorate degree.

With this strong committee I settled down to three months hard work trying to get to know the physical and political factors

affecting agriculture. Between the meetings of the committee I travelled far and wide to get an idea of conditions and what was possible to be done. A most instructive visit was to East Pakistan where we stayed with the Governor Firoz Khan Noon in Dacca. We got an army plane to take us about the country. One of the places where we landed was a military station at Chittagong and I was astonished to see a lot of troops on parade. A colonel came up, saluted, and invited me to inspect the troops. I tried to explain to him that I had come to advise on agricultural affairs and had no standing to warrant me reviewing the troops. However he insisted and I walked down the ranks trying hard to assume a military bearing. The inspection completed, he ordered the troops back to barracks and took us by car for lunch at headquarters. When we arrived, we found a pipe band all dressed in Highland costume. The piping was excellent, and the colonel asked me if there was any tune I would like them to play. I said I would like to hear 'The Barren Rocks of Aden' and 'The Cock of the North' which they played for us. He then asked my wife if there was any tune she would like to hear. She said she would like 'The Muckin' o' Geordie's Byre'. When commanding the Aberdeen University Officers Training Corps I had asked the pipe major of the unit to get the band to practise that popular Scottish tune but was told it was not suitable for the pipes. Here in Pakistan the pipe major looked puzzled when the colonel asked for the tune, but after consulting some of the pipers he agreed to play it and, to my astonishment, they did. I was told afterwards that the band we had been listening to had won a competition in Britain against the pipe bands of British regiments.

At lunch we learned about the long association of this Pakistan regiment with Highland regiments and later inspected the headquarters, mess, and trophies which all regiments collect, and also looked at the letters from famous generals in whose command the regiment had been. It seemed to me that their sentimental attachment to the British Army was stronger than to their native land—an illustration of the marked ability of British officers in training native troops and inspiring them with a pride in their regiments. I asked the colonel why he had made such a fuss about me. He said that at an examination at the Staff College in London, one of the questions had been 'Give a short account of what you know



about Sir John Boyd Orr', and as he had answered the question, he was curious to meet me.

We were staying with the Governor at Dacca on 30 November, St. Andrew's Night, when in every town in the world where there are a half dozen Scotsmen there is a St Andrew's Society dinner. In speeches and Scottish songs they join in extolling the glories of their native land. A Scotsman at home is a modest fellow, but a Scotsman abroad is very patriotic, and the further he is away from Scotland the more patriotic and boastful of his country he becomes. An Englishman or any other foreign guest at a St Andrew's dinner, after hearing an eloquent speech proposing the toast to 'Bruce, Wallace and other Scottish heroes and famous men' and the wild applause after the toast had been honoured by a copious libation of whisky, would leave with no doubt at all in his mind about the great contribution Scotland had made to democratic freedom, to learning, and to the economic prosperity of the world!

East Pakistan is the main producer of jute, and there were a number of Scotsmen from Dundee, the centre of the jute industry in Britain, and of course, they held a St Andrew's dinner. Firoz Khan Noon was the principal guest, and my wife and I were invited to accompany him. It far outshone any St Andrew's day dinner I had ever attended in Scotland. As we approached the building where the dinner was held we heard the bagpipes playing, and when we entered we found nearly all the men in full Highland costume. There was no scarcity of whisky, and all the speeches, songs, and dancing went with a bang. After singing 'Auld Lang Syne' everyone left feeling that Scotland had been duly honoured, and a good time had been had by all.

To come back to the business which had brought me to East Pakistan, the agricultural department asked us to visit a certain village where some experiments had been carried out by a junior member of the department. When we arrived, the village was gay with lines of small paper flags, and we were met by about three to four hundred villagers. We were taken to see experiments done by this government official and we were shown fields where the experimental crops were about 50 per cent better than in adjoining untreated control fields. The official, who had only had a primary education, told us that he had got a little booklet which explained

how an increase in production could be achieved by better cultivation with metal ploughs and by fertilisers, and had decided to try the improved method. He had got a steel plough and a quantity of fertilisers from the government experimental farm at Dacca and applied them with spectacular results.

The great welcome the village had given me was due to their expectation that I had come to provide them with the metal implements and fertilisers used in the experiment. This was embarrassing because I doubted if they were available; however I promised that when I got back to Dacca I would do what I could to get the government to provide them as soon as possible. When I inquired at the agricultural department at Dacca it was as I had feared. The implements used in the village experiment had been made at the government experimental farm and the fertilisers were from the small stock supplied for experiments. There was not a supply of steel and no factory to make implements or fertilisers nor likely to be in the immediate future. There was the same problem in other villages we visited. This situation illustrates how easily food production could be increased in the backward countries if only the peasants had the industrial equipment needed, which is far more important than the 'know-how' of foreign experts. East Pakistan had many agricultural problems the solution of which was obvious, but the physical means of solving them was lacking. The all-embracing problem was the poverty of the peasants, and the government had not the financial credits to enable it to import what was needed, and local industries had not yet been set up to provide these necessities.

The report on the special needs of East Pakistan having been considered, the committee agreed on the recommendations to be made to the government. At this stage I suggested that, before drafting the report, we should consider what recommendations had been made by the United Nations and Truman's Point IV Plan and other technical advisers. The Pakistani chief civil servant on the committee, however, said he refused to waste time considering them. The other members agreed with him, so no notice was taken of them. Later, on visiting the head of the agricultural department, I saw a pile of these recommendations and was told that nobody had ever been sufficiently interested to read them.

While the secretariat were getting the final draft typed, we went

off to visit Kashmir. Some Indians were going up on business with Mr. Heath, the agent for Ferguson tractors. I had attended a demonstration he had given at Karachi, and having these tractors on my own farm and knowing Harry Ferguson, who was a genius in inventing improvements in agricultural implements, I was able in a short speech to commend them. In return for this Mr. Heath offered me a seat in the plane from New Delhi, so we went with him and stayed for three days at Srinagar.

We travelled up the hill to Gulmarj, a one-time holiday resort for British officers in the army, me on a pony and my wife on a litter carried by four natives, and accompanied by guides. The scenery on the way was magnificent. When we got to the little plateau on the Himalayas we found hotels, polo grounds, a golf course and many other facilities for sports and amusements almost completely deserted. The only people left were a few caretakers and some Indian troops on guard against Pakistani troops a few miles away. Going up was not so bad because the pace uphill was slow, but coming down was frightening. The road was rough, with loose stones and many hairpin bends, overshadowed by big hills on one side, and on the other was a steep fall of hundreds of feet into deep valleys. I dismounted from my pony and walked at the more dangerous parts and was worried about my wife who had been carried off at a rapid trotting pace by her bearers and was well ahead. She, terrified out of her wits, implored them to stop and let her off to walk, but they trotted on downhill chattering all the time and taking no account of her appeals to be allowed to walk. When I got to the starting place at the foot of the hill I was greatly relieved to find her safe but badly shaken by the journey down. Owing to the war between India and Pakistan the tourist traffic had fallen off and the guides and bearers who had depended on this for their living were poor. They pleaded for big tips in addition to the standard rate. We were able to leave them well pleased, and they implored us to come back again. We visited Srinagar, with its famous artificial floating gardens on the Dal Lake. Peasants live on them making what must have been at that time a poor living growing vegetables and fishing.

Sheik Abdullah, the Prime Minister, whom I had met at Prime Minister Nehru's residence in Delhi, invited us to dinner. After a long discussion in which I got a good deal of information about the

position of Kashmir and the quarrel between India and Pakistan, I suggested that it might be worth while considering an attempt to get India and Pakistan to agree to set up a temporary government of three Indians, three Pakistanis and three foreigners appointed by the smaller countries who could not be accused of imperialistic motives, to govern the country for, say, five years. During that time experts could be called in to examine the water supply of the rivers flowing from Kashmir and work out a plan which would give sufficient water to both India and Pakistan. It might be possible to get a foreign loan from the World Bank or other sources to defray the cost of the plan. By the end of the five years the war spirit would have died down, and the assurance of sufficient water for irrigation, which was of vital importance to both countries, might bring about a calmer atmosphere. An agreement might then be reached for a plebiscite for the whole country or for different areas to find out the wishes of the people or even to join with India and Pakistan in an all-India federation.

Sheik Abdullah thought it was a grand idea and asked me if I would suggest it to Pandit Nehru. This I was reluctant to do, but Abdullah phoned to New Delhi and was informed that Pandit Nehru would be glad to see me on my way back from Pakistan. However, when I outlined the suggested plan to him he showed little interest in it. His home had been in Kashmir and he obviously had an emotional attachment to it and wanted it all for India. When we got home we regretted to learn that India had put Sheik Abdullah in prison where we were told he was kept without any trial. Only very recently, just before Nehru's death, was he released, but he is now under arrest again.

When we left Kashmir for India we had to cross the Himalayas as we had done coming in. The plane was so low when we were crossing the summit that the wind from the propellers was waving the grass. To my relief we got over in safety, but we learned later that another plane coming after us had crashed on the summit. Accompanying us, in addition to Mr. Heath of Ferguson tractors, were some Sikh merchants. They were delightful companions and regaled us with many stories about the Sikhs whom some other Indians regarded as being rather slow-witted. The stories were very amusing. One was about the Sikh who was attending a party wearing socks of different colours. When someone remarked on

this, he said, 'Yes, I was cheated by the shopkeeper and, worse than that, I have another pair at home which are just like these'. Another story was about a Sikh gentleman who had ordered his gardener to water the lawn every day. One day after the monsoon rains had come he noticed that the gardener was not watering the lawn, so he called him and demanded to know why. The gardener said, 'Look at the rain', to which the Sikh gentleman replied, 'Have you not got an umbrella?' I told some of these stories in India at a party where there were some Sikhs and later had an indignant complaining letter from a Sikh. I replied to his letter saying that I was paying the Sikhs a compliment. Like the Scots and the Jews they were the only people who felt sufficiently superior to be able to invent stories against themselves. This, I hoped, would appease him.

When we returned to Karachi there were still a few free days before the draft of the report was ready for finalising by the committee, so we decided to go up to the Khyber Pass. We went to Peshawar and then on through the Pathan country to the pass. We went over the road that General Roberts had marched to Kabul to quell a rebellion and hold the frontier against the threat of a Russian invasion. In passing through one area, we saw date palms growing. As these were the only specimens we had seen in Pakistan we inquired about them and were told that when Alexander the Great crossed the Himalayas by one pass he had halted there to await the other half of his army coming through by another pass. As dates formed part of the soldiers' rations, some of the date stones thrown down by them had taken root and produced the palm trees which had been perpetuated ever since. Alexander the Great had the idea of linking the eastern countries he had conquered by blood connections. He married native women and his officers and soldiers did likewise. We found later that there were a few people in Karachi with natural fair or red hair, blue eyes and fair complexions, and we were told that they were descendants of Alexander the Great's army. They were so proud of red hair that some of them even dyed their hair red.

The Pathans are magnificent physical specimens of men, tall and lithe. I asked them about their diet which did not look at first as if it could support people of such a fine physique. I thought a survey of their diet and the physical condition of the men, on the

lines we had carried out on two tribes in Africa, might yield results in nutrition at least equal in importance to experiments with rats and guinea pigs. The Pathans were great fighters but they did not kill women. To prevent them being shot in small local fights the women wore red clothes distinctive from those worn by the men.

When we got into the middle of the country and stopped at a small village the Pathans came round us, each carrying a rifle which, by the way, were made locally. They seemed to be somewhat hostile, but the guide who accompanied us explained to them that we were friends and had come out to advise on what could be done to improve the food conditions and their general wellbeing. After shaking hands with some of them we were regarded as friends, and we pushed on through the Khyber Pass.

At the Afghan border we found a gate across the road with guards posted. It was said that nobody was allowed to pass through without a passport and visas. However, nearly 100,000 people pass back and forth every year for work in Pakistan, and there were frequent native lorries, their wheels and bodywork all beautifully painted, passing through the gate without any demand for passports or visas. Apart from the gate there was no fence nor guards at the boundary, and I said I would like to have a look at the country over the hill. I was warned that if I did so I might be shot, so fear overcame my curiosity. There was a Pakistani guard on the Pakistan side of the boundary who entertained us to tea. We went back down to Peshawar and noted, as we had done on the way up, the names and symbols of many Scottish and other regiments which had been on the march from Kandahar to Kabul with General Roberts, and of subsequent forces sent up to guard the frontier.

When we got back to Karachi the draft report was finished, and after revision of details and phraseology the final copy was made out and submitted to the government, which agreed to have it carried through. Some months later, however, I was asked to go back again to Pakistan. The position had deteriorated and there was rioting due to a shortage of food. In London Sir Roger Thomas had urged me to go back, so I agreed. The government offered to give me the equivalent of two million pounds to import what was needed to increase food production in the shortest

possible time. Several shiploads of nitrogenous fertilisers were obtained as a gift from the United States, and I worked out a plan for the distribution of these and for certain other measures which could be taken immediately, with the help of some of the members of the committee which had prepared the long-term plans. One of the problems was how to use the limited amount of fertiliser on the crops and in the districts where it would give the best return. A major difficulty here was to find civil servants who were free from corruption. I went to see the President, a fine honest man, and told him I wished to see the Commander in Chief of the army. He sent for him and I asked him for some officers to accompany me in an army plane to the different provinces to arrange with the Minister of Agriculture in each province for the distribution of the fertilisers and the carrying out of other measures. He asked why I wanted army officers who knew nothing about agriculture, and I replied, 'Army officers are under discipline, and if I found any one of them diverging from the orders given them and getting, by the offer of bribes, special supplies for any district, I would report back to you to have that officer recalled and punished'. The Commander in Chief agreed, and I then took a plane to visit the different provinces. When I reached Lahore, expecting to be met by the Minister of Agriculture and the chief agricultural officials so that I could get on with the job, I found that they were mainly interested in a cricket match between Pakistan and the English M.C.C. They informed me that at great trouble they had got tickets for my wife and me to go to the match. I was indignant and asked the Minister to come with me to his office instead of going to the match but it was hopeless, so I went alone to the agricultural headquarters and got what information I could from junior officers who had no tickets for the cricket match.

Having got the fertilisers distributed where I thought they would give the best results, and the agreement of the Ministry of Agriculture to carry out the other measures, we left Karachi hoping that the measures taken would alleviate the food shortage. I was informed later by Shafi Niaz that this indeed was what happened.

### Visit to Japan

During my visit to Pakistan in October 1952, I received an

invitation to attend a World Peace Conference in Japan, and as we were already half-way there my wife and I decided to go. The conference began with a ceremony at Hiroshima on the anniversary of the bombing. Even at that date, the city consisted of shattered walls and twisted pieces of steel. The ground was so sterilised by the heat that any kind of vegetation, even weeds, had not yet appeared. The Americans had estimated the deaths at about 80,000, but the president of the university, who had happened to be in Tokyo when the bombing occurred and thus escaped, told us that the estimated death roll in Hiroshima and Nagasaki was about 200,000. In addition to those who had been killed outright, there were several hundreds on the outskirts who suffered from burns from the fall-out. Some of these we saw, and it was a gruesome sight.

On the anniversary, there was a demonstration attended by representatives from all the religious groups and some social organisations. It was a very moving ceremony; the delegates, those from the religious organisations in their church robes, stood for a time in silence, and then a few speeches were made expressing the hope that there would never be another Hiroshima in any part of the world. If all the Foreign Ministers from different countries together with some of the senior civil servants, could have been made to attend this moving ceremony they would have taken up a new and more peaceful attitude towards world affairs.

From Hiroshima we went to Tokyo where the delegates from Britain and some other foreign countries were received at the Parliament House, and I was given the opportunity of addressing members of their Congress. We also visited Osaka, Atami, and Kamioka. We were invited to meet and be entertained by groups of business men, with whom we discussed economic affairs and the prospect of increasing world trade, a matter of special importance to both Britain and Japan which had to export industrial goods to pay for the import of food and raw materials. In these discussions Mr. Ota Adler—a highly successful business man and a strong advocate of world government and peace—took a prominent part, and helped us to reach general agreement on the economic measures needed in a sane world. In all our discussions with the Japanese we found that, whatever might be the views of the government, which seemed to be largely



dependent on the United States, the people, especially the university students, were overwhelmingly in favour of world peace. This was not to be wondered at since Hiroshima and Nagasaki had given them a foretaste of what another war would be like with modern nuclear weapons a thousand times as powerful as the rather primitive atomic weapons.

Another impression we got was that the economic interests of Japan and China were complementary. Japan needed imports of food and raw materials from China, and China needed the industrial products which Japan could supply. Further, both were Asians with pretty much the same culture, the languages closely allied, and a similar form of art. Later, when we were in Peking in 1956, Japan held a big exhibition there of industrial products followed by a banquet at which speeches expressing good-will and common interests were made on both sides. Since our visit the various political and religious organisations in which we became interested have kept in touch with us, and at their request I have sent messages to various conferences and demonstrations in favour of world government and peace. My impression is that if Japan were allowed a free secret plebiscite on the removal of American bases, it would be overwhelmingly approved.

Apart from the economic and political questions which we discussed, we were interested in the culture and way of life of the Japanese. The idea that the Emperor was of divine origin with divine powers had been shattered by the war. America's God seemed to be more powerful than the Japanese Emperor, and there was consequently a considerable movement towards a rationalistic democratic form of government which, by the way, had been favoured by General McArthur who had been in control of Japan immediately after the war.

The North Island which we visited was beautiful. We crossed over at the foot of the sacred mountain of Fujiyama which is over 12,000 feet high. The lifting of the clouds to show the snow-covered peak is considered a good omen. When we set out to go to Atami the peak was invisible, but when we got nearer the foot of the mountain the clouds cleared and we got a magnificent view of the summit, whereupon our Japanese friends congratulated us on the good omen for our visit. At the hotel in Atami there was a beautiful view from our bedroom window. At a complimentary

dinner given for us, I referred to this view and said that while I was looking at it I had remarked to my wife that Japan was almost as beautiful as Scotland, to which she replied, 'Take another look at it and you will come to share my view that it is just as beautiful as Scotland'. This was much appreciated by the audience. The hotel had been built over hot springs and there was a hot swimming pool in an underground chamber. I went down to have a bath and found both men and women bathing practically naked. My innate modesty prevented me from going into the pool!

Mr. Shimonaka, a wealthy publisher, took us in his car to see the biggest monument to Buddha. Finally we were taken to see farms by Mr. Kagawa, a former member of the Congress who had given up his seat in order to take over the presidency of the Agricultural Co-operative Movement. We found their agriculture very advanced. Every piece of ground which could be cultivated was yielding big crops. The yield per acre was between two and three times that of some crops in India, and on the hills, timber of little use was being rapidly replaced by fruit trees. The provision of food for a population which has now reached about a hundred million is probably the most urgent problem in Japan today.

## SARDINIA AND CYPRUS

The fall in the death rate and the great improvement in health which followed the elimination of malaria is one of the great advances made by modern science, but as the death rate goes down, without any fall in the birth rate, the population increases at such a rate that in some areas it has doubled in a little over twenty years; this means a fresh problem: where to find sufficient food.

The Rockefeller Foundation had made a grant to the Italian government for the elimination of malaria in Sardinia. Though they could hardly have chosen a more difficult island for the complete elimination of mosquitoes, they have succeeded. I was asked to visit the island and make suggestions for what more could be done to improve the condition of the inhabitants. I knew that a similar campaign was being carried out in Cyprus and decided to go there on the way to see how it was getting on. I found, when I arrived, that there was a competition between Cyprus and Sardinia

as to which would eliminate malaria first, the loser to provide the winner with a barrel of wine.

The Chief Medical Officer of Cyprus was Dr. Shelley, a great-grandson of the poet, a relationship of which he was very proud. He showed that he had inherited some of his ancestor's talents by writing occasional poems himself. He and his chief of staff, a very able Turk, had been most successful in eliminating the mosquito and exercised great care to ward off a further invasion, for example, all trains were sprayed with D.D.T. If I remember aright, Cyprus won the barrel of wine.

We travelled over the island along with either Dr. Shelley or the head of the Department of Agriculture who was doing excellent work with experiments and demonstrations to persuade the farmers to adopt modern methods. Going around with these scientists I found that they had made friends with the people of the island and were warmly welcomed in all the villages where we stopped. Over the years, the valuable forests had been largely destroyed by goats. The head of the Forestry Division had been able to persuade the peasants to co-operate with him by having their goats tethered, and the resulting immediate improvement in the forests was quite remarkable.

Dr. Shelley, who was interested in the political struggle and keen to keep Cyprus as a British possession, told me that, after the priests, the doctors had the greatest influence with the population. They were sent to Greece to be trained. He had suggested to the British government that with the facilities he had developed in the hospital it would be possible, by bringing out retired physicians and surgeons to Cyprus, to send some of the Cyprus medical students to Britain for training. It would also be possible to have others trained on the island to sit the triple exam, which would enable them to be put on the British Register without a British university degree in medicine. I asked the Governor and some of his staff about this but he did not consider it feasible, nor did the Colonial Office when I made the suggestion to them on my return to London. Dr. Shelley was doing a grand job by introducing Turk and Greek Cypriots into the hospital and medical service with the same status and pay as the British officers. He told me that this was unpopular, as many of the British officials, and even the

nurses, thought it was degrading for British citizens to be put on the same footing as the natives.

Having left this delightful island with its wonderful climate (which I and many others are sorry to see passing out of the British Commonwealth, largely through the mismanagement of the Colonial Office), we went on to Sardinia. There we found a group of talented, enthusiastic Americans who had just completed the exceedingly difficult task of eliminating malaria from that mountainous island. The efficient Rockefeller team had studied the health effect of the elimination of the disease. Formerly, almost everybody had malaria, and in the short time since the disease was eradicated, the capacity for work had increased and this in turn was causing labour difficulties because fewer workers were needed. There had been such a big drop in the death rate without any drop in the birth rate, that they estimated the population would be doubled in about twenty years. The peasants were all poor and their methods of cultivation primitive with poor crops and low yields per acre. An experimental farm had been started on the island managed by the Department of Agriculture in Rome, and there we found crops with more than double the yield of those grown by the peasants, but little or nothing was being done to provide the peasants with the means of improving their agriculture or show them how to apply modern methods for increased production. We discussed with the American workers the difficulty of providing sufficient food for a doubled population and decided that as this would be the biggest problem facing Sardinia, I should report that the next measure needed for the island would be a campaign for the improvement of its agriculture and doubling its food supply. I reported that this should be given priority in plans to improve the condition of the Sardinian people, but I doubt if my recommendation was carried out.

I got on as well with the American scientists as I did with the British team in Cyprus, and left feeling that if the relations between the ruling government and the native inhabitants were left more in the hands of the technical people, who understood the problems and needs of the people, and less in the hands of politicians and civil servants, it would be much easier to bring about good relations and the rapid improvement of the standard of living in our Colonies.

## CHAPTER 27

# FOREIGN TRAVEL: THE SOVIET UNION, RUMANIA, CZECHOSLOVAKIA AND YUGOSLAVIA

## THE MOSCOW ECONOMIC CONFERENCE

IN 1952, I received an invitation from the Committee of Economists which had met in Denmark, asking me to join a British group going to an Economic Conference in Moscow. I asked why the meeting was to be in Moscow and was told they had tried several countries, but Russia was the only government which offered to give visas to those attending from any country in the world, and also to give free hospitality to the foreigners coming to the conference. In spite of this attractive offer and my desire to see for myself what was really happening in Russia, I wrote refusing to go unless they got agreement that the conference would be devoted exclusively to economics and world trade. Agreement was reached so I decided to go.

I made this stipulation because of what had happened two years previously at an international conference of writers, artists and scientists at Wroclaw in Poland where Ilya Ehrenberg made a speech attacking Britain and America. I spoke after him and tried to undo the harm which I thought his speech had done. I had been appointed as one of a committee of six, with two Russians, Sir Julian Huxley, and two others to draw up the resolutions to be approved at the end of the conference. When the committee met, the two Russians put down on the table the resolutions they had drawn up and which they evidently expected us to approve, but Sir Julian Huxley and I refused to accept the Russian version. After much argument I said I would submit a draft at another meeting. The gist of my draft was a recommendation for international co-operation between all countries irrespective of their political or economic systems, and the development of the resources of the earth to abolish poverty and bring about economic prosperity which would be of benefit to all countries.

At the next meeting I tabled this draft which was discussed at great length, but the meeting closed without having reached agreement. We met a third time, and to my astonishment they said they were prepared to accept my draft provided there was a preamble denouncing imperialism. We wrangled about this for a time, and then I got them to modify the preamble to such an extent that I wondered if I should not agree to it. However, having dug in my heels I decided to hold fast to my draft, which made not the slightest reference to any political differences. When the resolution was put to the conference it was almost unanimously approved by all the delegates who included Kingsley Martin, editor of the *New Statesman*, Ritchie Calder, and other friends. The only objectors were a very right-wing Tory and myself, and another member whose name and nationality I have forgotten.

After this experience I was a bit wary about going to Moscow, but I got the assurance I wanted agreed to in writing by our Russian friends and joined the British group. The group included some left-wing Labour Members of Parliament, Mr Emrys Hughes and Mr Sydney Silverman, and Mr Henry Usborne, one Conservative M.P., economists from Durham, Cambridge, Oxford and Glasgow, and about a dozen business men keen to get orders. Emrys Hughes had learned Russian when a boy. I have been friendly with him since the time of this conference and he sends me copies of the books he writes. He is a first-class writer and his general views are right. He is possibly the wittiest Member in the House of Commons and has a way of asking a question which causes laughter and good will and relieves tension. Everybody likes him.

I was invited to lead the British delegation, and being the senior, at least in age, accepted the job. Belonging to no political party, I thought I might be able to smooth over any differences which might arise between the British and Russian delegates. When we arrived in Moscow, my wife and I were given a beautiful suite of rooms in the Moskva Hotel. The only thing that seemed to us to be wrong was that the washbasin in the bathroom had no plug to prevent the water running away. On inquiring about this, I was told that no basins in the new buildings in the Soviet Union had waste plugs as the Russians considered it unhygienic to continue washing with the same water, so one was forced to wash with

running water all the time. Moscow must have an enormous water supply. My wife and I were given a car and an interpreter to go to the conference, which was held in the Colonnade Hall. When we got near the building, we found a mob of people, and the car had to slow down to walking pace. Some of the people were clawing with their fingers at the car windows and yelling something in Russian. I asked the interpreter what they were saying, and she replied that they were calling 'Do you bring us peace?' which, in view of the sufferings of the Russians in the war, was a very moving appeal.

As leader of the British delegation I was one of the first speakers and I began by referring to the great contribution the Russians had made to the defeat of the Nazi hordes in the last war, without which help it is doubtful if the British and Americans would ever have been able to get their armies on to the continent to join hands with the advancing Russian armies. All freedom-loving nations were indebted to Russia and must sympathise with the Russian people who had suffered the loss of over twenty million lives and ruthless devastation by the retreating Nazi armies. I said how glad we British delegates were to see Russia beginning to recover, with its new buildings and the rapid development of its industries. Fearing that the Russians might get in a little propaganda I thought I might, without violating the agreement to keep off politics, tell them something of the social measures in Britain for the abolition of poverty, and I enlarged on the National Health Service which was extended to foreigners visiting our country. I told them that if any of them came to Britain, we would be delighted to see them, and if they became ill, would give them the best possible treatment free. I then suggested that we should forget completely about political differences because political systems were not static; with the tremendous advances in science the change in the future would be more rapid than in the past, and there was no need to quarrel about different political and economic systems. If Communism gave the best standard of living coupled with individual freedom, there was no doubt that other countries would ultimately adopt this system. On the other hand, however, I suggested that the British system, which had evolved more slowly than the Russian one, with its social services and a good deal of government control, might be the future method

which would appeal to all countries, and if so, the Communist system might be modified. In any case, the big issue was how to avoid war. It seemed to me one of the best ways of doing this was to increase world trade with no barriers on political grounds. As trade increased, prosperity for all countries would increase, and a feeling of friendship and better understanding between the nations would help to put an end to the regrettable cold war. The speech was received with great applause and a standing ovation. Next day it was reported in full in the Russian papers and in the English editions covering the conference.

After the main speeches had been made, I found that the business men who had accompanied us, instead of coming to the conference were meeting with Russian and Chinese officials to make business deals. I therefore suggested to the conference committee that it would be advisable to stop the conference meeting for a couple of days to enable the business men to get together. I then sent off a cablegram to the President of the Board of Trade in Britain stating that provisional business deals were being made with Russia and China for the export and import of goods, and I asked for someone to be sent from the British Embassy to advise and ensure that there would be no political difficulty about the deals. I received a long cablegram in reply, the essence of which was 'Keep off the grass and don't interfere with the normal channels of trade'.

Mr. Sydney Silverman, a very able lawyer, was most helpful in working out the trade agreements. The Chinese delegation insisted that I should personally sign the arrangements for trade with Britain which amounted to £10,000,000 for China. I pointed out that I was only an individual but subject to the approval of the British Board of Trade I would do my best to have them put through. I then sent another urgent cablegram to the Board of Trade stating that big provisional deals were being made, and asking for someone to come from London or the British Embassy in Moscow to advise on what would be permitted. To this there was no reply. Another thing which both Russians and Chinese insisted on was that I should try to set up a responsible committee in London which would ensure that the Chinese and Russian offers to buy or sell would be made available to all British business companies interested. This I agreed to do.



When we got back to London from Moscow the British delegation was asked to do a television talk on their impressions of Russia. Five of us gave this talk and presented a factual description of what we had seen and our impressions. Then in the last minute, when I was expecting to sum up, as we thought had been arranged, the lights were switched from us to a financial expert from one of the main newspapers. He made a short speech the essence of which was, 'Don't accept anything these people say—they have been brainwashed. Russia is nothing like what they have been telling us.' He gave the impression that we were a bunch of Communists. We were furious at this trick, but the B.B.C. official told us he had to arrange to do that, because otherwise we would not have been allowed to do the programme at all. We can, I suppose, hardly blame the authorities, for there is nothing they dislike more than somebody speaking truth which conflicts with what they want people to believe. In this, all governments appear to be the same.

On our return to London we held a meeting which agreed to setting up a committee of business men, and including the Conservative M.P. who had been with us, but leaving out the left-wing M.P.s in the hope that it would lessen any opposition from the Foreign Office or the Board of Trade. This was unfair to Sydney Silverman who had been so helpful in drawing up the trade agreements and was willing to be on the committee. I thought it better, however, to limit it to the business men who were eager to engage in export trade and to get the deals carried through. Having formed the committee I went with them to the Board of Trade to report what had been done. I asked the officials there to look into the deals and inform the committee as soon as possible what would be permitted. The business men who were keen to develop trade, formed a British Council for the Promotion of International Trade and invited me to be honorary president. I accepted the invitation and have continued to do all I can to increase foreign trade to all Communist countries.

It was easier to get agreement on a business deal than to get the deal carried through. China was engaged in a big drive for the elimination of disease and wanted to buy penicillin from Britain, offering to pay for it in sterling or dollars. When a question was asked in the House of Commons as to why this deal was not permitted, a government spokesman said it was refused because

it might save the lives of children who might grow up to be soldiers fighting against our children. In the end, the Chinese gave the order to Germany. Being doubtful about the continuation of a supply from Western Europe or America, as soon as they could the Chinese set up their own factories to produce penicillin and other antibiotics and, as I found later, when the embargo on the drug from Britain was removed, they continued to buy from Europe for domestic needs and made their own product available for export to South-East Asia.

Some time later questions were asked in the House of Commons about the British Council for International Trade, and Anthony Eden (who was then Foreign Secretary and is now Lord Avon) replied that it was a Communist-controlled organisation. In reply to a written parliamentary question on 8 November, 1954, he said: 'The British Council for the Promotion of International Trade is a Communist Front organisation. I welcome this opportunity to reiterate the advice which Her Majesty's Government have given and are giving to British firms not to associate themselves directly or indirectly with the activities of this body'. I wanted to raise this question in the House of Lords, but a chief official told me that it would not be permissible and that it would be better if I would see the Marquis of Reading who was a Minister in the Foreign Office. I made an appointment with him and asked if he could give me some evidence that the council was a Communist-controlled organisation because, as president, I had been alarmed by the Foreign Office statement and had convened a meeting of the council to consider it. I assured him that if any of its members were acting against the interests of this country, I would do my best to have the council dissolved. He promised to send me the evidence that the council was Communist-controlled, but nothing came. I approached him again and asked for the evidence. He said he could not disclose it, but there was no doubt in his mind that we were a Communist-controlled organisation. He could give not a scrap of evidence. I offered to have the audited accounts and correspondence of the council made available to him or any members of the House of Commons or the House of Lords, and also a copy of all the minutes of the meetings of the council which would show there was no financial support from Communist countries. Its funds were obtained solely from con-

tributions from British companies which got orders through the good offices of the council. There was nothing in the business of the council except the promotion of trade between East and West which, in my opinion, was a desirable project.

After this, I took a more active part by attending as many council meetings as possible. The Foreign Office statement had rather shaken a number of business men connected with the council, but, on the other hand, a number of other business men who had known nothing about it and were anxious for orders from Russia, China and the East, applied to join. The numbers increased so much that the fee for receiving information about possible orders was raised, and the council, which had been in financial difficulties, was put on its feet again. To satisfy the business men connected with the council who still wanted to compete for orders, a separate body was formed called the International Trade Organisation with an office in the city to which the council gave information about opportunities for trade with the East.

The council has undoubtedly been able to increase business with the Eastern countries, but owing to the trade embargo, for which it was understood the Americans were mainly responsible, we could not increase the business so rapidly as the Germans who put German business interests before instructions from Cocom (the Co-ordinating Committee) with offices in Paris but dominated by the United States. Since 1952 British trade to the Iron Curtain countries has increased from £142 million to £352 million in 1963 whereas Germany's trade has increased from £71.4 million to £569 million in the same period.

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While we were in Russia at the Moscow conference, we had a certain amount of time to look around. We were informed that in 1946 at the end of the war the country was desperately poor, with a shortage of food and clothing. In the winter some of the people had to wrap straw round their feet to replace boots, which were unobtainable. By 1952 conditions were evidently much better. The clothing of the people was drab, but there was nobody without sufficient clothes to keep warm. The food position had obviously greatly improved and there was also a great increase in

the amount of other consumer goods. There was enormous building activity going on, with factories being erected on the outskirts of Moscow and blocks of apartment houses going up all over the city. We had a run in the underground compared with which the New York subway and even the London tube seemed drab and plain. An interesting feature of their coaches was that a separate compartment was reserved for pregnant women, old people, and the lame. Russia looks after these people very well.

We have been back in Russia five times since. Each time we noticed a great improvement. Now the people are better dressed, but the men all wear long overcoats which make them look drab to Western eyes; as a matter of fact, around sixty years ago, in Scotland at least, long overcoats were the fashion. In Moscow there must be a very large number of what we would call middle-class people able to dine out. In spite of the number of new hotels, one has to book a table well beforehand. There must be many thousands every night dining out with their families and friends. The idea that people in Russia are waiting and hoping to be delivered from Communism by the allied Western nations is hardly valid.

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In the winter of 1959 my wife and I went to Russia with the chairman and two other directors of Doubleday and Company, the New York publishers, to try to get some English scientific books translated into Russian, and some Russian textbooks into English. The scientists and officials of the Soviet Publications Department were friendly and willing to co-operate, but unfortunately it was impossible to get the exchange of scientific and other books carried through.

On one occasion we had a free weekend and the Russians invited us to take a plane and go to see the industries and new towns in Siberia. As I had been there previously on the way to China I suggested that it would be much more interesting to go to Samarkand, a very old town which had once been one of the most important in the world. We hoped, if we went there, to get some heat and sunshine. The hotels in Moscow were all as well heated as American hotels but outside the cold was so severe that it was no pleasure to walk about. We set off for Samarkand and after we had been flying for a time, we came down at Sverdlovsk and were

told that owing to a violent storm the big jet plane had been forced to go east instead of south and we would need to stay overnight. We had a pleasant meal, and went across to rooms in a building adjoining the airport which somehow seemed familiar. One of the staff came up to my wife and myself, looked at us and said, 'You were here in 1956, and here are your rooms—bedroom, sitting-room and bathroom—the same rooms as you had when you stopped a night on your way to China'.

Next day we got aboard the plane and set off for Samarkand but again there was a violent snow storm and we came down at Tashkent and were told we would have to stay two nights before the storm was likely to abate. The mayor came to see us and asked us what we would like to see. My American friends wanted to see a factory where there were 5,000 workers producing agricultural implements, but my wife and I wanted to go for a drive round the city and then to visit one of the schools. The city had grown from a town of about 200,000 at the end of the war to nearly a million, with new buildings and a medical school which we had no time to inspect. We were much interested in the school we visited. When we went into a classroom a boy got up, said something to the class in Russian, whereupon they all rose and said something in Russian to welcome us. It was explained to us that every class had a leader who was responsible for discipline. The cleaning of the school, including the washing of the floors, was done by the senior pupils who also arranged all the decorations, pictures, sewing done by the pupils, and flowers gathered and arranged by them. The number of hours spent in school were shorter than in this country, and from fourteen onwards the boys, in addition to their school education, were given some, practical instruction in factory work or other occupations they intended to follow when they left school. They had a very long summer vacation, nearly three months, when those who wished could go and work in Siberia. This was entirely voluntary but the majority of the boys went. When we met our American friends in the evening I suggested that we would need to give Samarkand a miss and go back to Moscow so soon as the plane was able to make the flight, otherwise we might have been held up and prevented from attending the meetings and interviews we had arranged there.

The last time my wife and I were in Moscow was at the British

Industries Fair in 1961. On our arrival we found that a room had been reserved for us at the New Ukraine Hotel. Mr. Isaac Woolfson, a Scottish multi-millionaire, arrived with his wife off the plane to find themselves in a milling crowd in the central hall of the hotel. Evidently no room had been reserved for them, and it seemed to me very odd that a multi-millionaire didn't use his wealth better and arrange for a secretary to reserve rooms and arrive a few days beforehand so that he could have been there to welcome them and take them to their rooms. However, as they were milling about, I happened to bump into Mr. Woolfson whom I had never met before. He spoke to me with a beautiful Glasgow accent and I answered, 'Ah, you must come from Glasgow the same as I do'. At that we both began to sing at the top of our voices, 'I belong to Glasgow, dear old Glasgow town . . . but when I get a couple of drinks on a Saturday, Glasgow belongs to me' ! Our wives were pulling at our jackets and telling us to be quiet but we carried on singing; we thought it good that our Russian friends should hear a fine Scottish song!

So many new hotels had been put up in Moscow and in the other big towns that there were not sufficient trained hotel managers, waiters and other expert domestics, and the staff had been made up with whatever labour they could get. As there was always a long delay in getting breakfast, we decided to try and have it brought to our room. After a long wait we decided it was never coming, so went down to the dining-room to try our luck there; there was obviously going to be a long wait in the dining-room too so we went back to our room in the hope that our breakfast might have arrived. We found that it had arrived while we were downstairs, and finding us gone it had been taken away again! My wife got on to the phone to the manager and after complaining about the difficulty in getting breakfast asked him to do something about it. The person at the other end replied, 'We are sorry we can do nothing to help you'. Tut why not?' asked my wife and the reply came back, 'This is the Cuban Embassy and we have nothing to do with the breakfast arrangements in the Ukraine Hotel' ! Though the waiters were very friendly and obliging, their lack of training and the language difficulties made things a little awkward at breakfast time when everybody was in a hurry and rather irritable. At dinner which was spread out from six to ten o'clock,

there was more leisure, and it was interesting to watch all the other diners. I remember a coal-black negress, a tall woman with a very fine carriage, who used to come down to the dining-room to dinner about the time when the place was most crowded. She was beautifully dressed and made her regal way from the door to her table at the far end of the dining-room obviously enjoying the looks of admiration she attracted.

On coming out of the dining-room one night, I saw at one of the tables a group of about ten Americans and an equal number of Russians. I recognized, among them, an American doctor I knew and being curious to know what they were doing there I went across and spoke to him. He told me they were all engaged in research on cancer. The American scientists had come over on a quite unofficial visit to compare progress with their Russian scientific colleagues. They were obviously getting on very well. They were so absorbed in their research that they had little interest in the politics of the cold war and it was apparent they were becoming close personal friends. Science recognises no political boundaries.

The business men attending the 1961 fair got on very well with the Russian trade bureaucrats, because they were all experts and knew exactly what they were talking about. They were able to arrange deals based on facts, which were understood and agreed by both sides. Very good business was done, with good orders for British firms and some orders to Russian firms for export to Britain. The business men were getting on so well that I suggested to some business friends at dinner one night that the Karl Marx slogan 'Workers of the world unite, you have nothing to lose but your chains', was out of date. The business men of the world had little difficulty in reaching agreement to increase world trade thus making for better understanding and a contribution to world-wide economic prosperity, and I suggested that the new slogan should be 'Business men of the world unite, you have nothing to lose but your politicians' ! The joke went down very well.

After the official opening of the exhibition there was a meeting at which Mr Khrushchev and some others were going to speak. When my wife and I arrived at the hall we found a great crowd so, being rather tired, we went and sat down on a seat by a window, whereupon an official came along to us and led us through the

crowd into the place reserved for about twenty of the leading personalities. When Mr. Krushchev began his speech we moved forward to hear what the interpreter was saying. In a minute or so Mr. Krushchev happened to notice the two old people standing looking rather tired, stopped his speech and ordered someone to bring two chairs for us. We appreciated this very much. I had met Mr. Krushchev before, but was sure that he would not remember me. However, when the speeches were finished he came over with Mr. Mikoyan and ordered a glass of wine to be brought to us. After giving toasts—they are great on toasts in Russia—both he and Mr. Mikoyan shook hands with us and hoped we would enjoy our visit. Then a nice-looking Russian woman who was evidently one of the important people to whom my wife, quite unconsciously, had given one of her charming smiles, came over and had a long talk with my wife in English. We left feeling that the Russians were a kindly people.

## RUMANIA AND CZECHOSLOVAKIA

In Moscow we met Mr. Roland Berger, director of the British Council for Foreign Trade, and Mr. and Mrs. Perry of the London Import and Export Company, who were doing trade with the Rumanian and Eastern countries, and we decided we would go home by Rumania and Czechoslovakia. We were greatly impressed with Bucharest. The road from the airport to the city had a centre part full of red roses, and on each side of the two roadways there were also beds of red roses. When we got into the city we found that there were flowers everywhere, so much so, that we christened it 'The City of Flowers'. There was great building activity going on with blocks of apartment houses being put up by the most modern methods; partitions including doors and windows were completed on the ground and then, when the walls were up so far, were lifted by a crane and slipped into position. The groups of flats were arranged in little communities with gardens and playgrounds.

We met some of the ministers and discussed business. Rumania seemed to be flourishing. I wanted to know where they got the money for the obvious developments taking place, and I was told that in this little country away in a corner of Europe they were under no pressure to rearm and spent only 7 per cent of the



national budget on defence compared with about 50 per cent in Britain and America. Thus, they had ample funds to apply modern technology to raising the standard of living of the people. One of the business items which interested me was tractors. The Rumanian government had offered to purchase the tractors they needed from Britain, but finding that they could not get them owing to the trade embargo, they set up factories for themselves and were now producing sufficient for all their needs, and in the previous year they had exported 600 surplus to their requirements. We found that the same thing had happened in both Russia and China, and probably in all the Communist countries. When, owing to the trade embargo, they were unable to import machinery or other equipment needed for the development of their industries, they set to and manufactured it for themselves. We were told that a Russian official had said to an American that Russia was greatly indebted to America for the embargo because it forced them to make for themselves the things they could not import. This made them more self-sufficient than if they had to depend upon imports and spare parts, which might have been cut off in any major political dispute and brought their industrial development to a standstill. The French influence in Rumania was very obvious in the hotels. The service and food were similar to that in a first-class hotel in France. We left Rumania hoping that it might be our good fortune some day to go back there for a more leisurely visit.

From Rumania we went to Prague which I had visited twice after the war. With the exception of Edinburgh, which Prague resembles, it is the most beautifully situated city in Europe. We visited what had been a king's residence on a height overlooking the city which reminded us of Edinburgh Castle and saw some of the relics of its former grandeur including a very old library full of priceless handwritten illuminated books and other treasures. Most of our time, however, was taken up in interviews with ministers obtaining information about the rapid development of their industries and the possibility of increased trade with Britain. Their main difficulty was scarcity of labour, but by applying modern mechanisation to farming they were able to arrange for workers to be drafted from the land into their factories. The hotel where we stayed was excellent. On the night before we left we had a dinner with some of the ministers and were presented with some

beautiful examples of the famous Czechoslovakian glass as souvenirs of our visit.

## YUGOSLAVIA

I was asked by an organisation in this country to visit Yugoslavia and went there in August 1950. When there I met a number of government ministers and discussed with them plans for trade and industrial development. We visited Dbrovnik, which had been independent for a time and used by successive governments as a secret storehouse for keeping their money safe in wars and other troublous times. Dbrovnik had a unique system of government. One man was chosen as dictator for one year only, when he was stripped of all his powers, not knowing who his successor would be.

When we were at Dbrovnik, President Tito sent a plane to bring us to Belgrade. We arrived at the villa where he stayed and saw that there was only one soldier on guard at the gate. We had tea with him and discussed his national affairs and I ventured to tell him that the plans of his ministers were going to meet a lot of snags. He agreed and said that they would adjust them from time to time as need be. I suggested to him that he might link up with British companies engaged in the kind of industries he was developing, making a five-year contract that they would provide the capital and the technicians to develop their industries and dividing a share of the profits between the companies concerned and Yugoslavia. After a two-hour talk with Tito, which had been so friendly and homely that I had sat and smoked my pipe without asking permission, he insisted that we should stay for dinner where we continued our talk through an interpreter. When the interpreter left the room to make some phone calls about our further travel arrangements, my wife began to talk to Tito in English. He replied in quite good but hesitant English. He told us that he thought Yugoslays were very like the Scots and said he would like to visit Scotland. My wife replied, 'My husband will arrange that. He is Chancellor of Glasgow University and they are inviting a number of distinguished foreigners to their 550th anniversary to receive honorary degrees.'

When I got home I wrote to the Prime Minister suggesting that

it would be a good thing to try to bring Tito straight to Glasgow as an honours graduate and at the same time to try to carry through the trade arrangements I had suggested to him. This would give the Prime Minister and President Eisenhower, who at that time had agreed to come to the anniversary celebrations, an opportunity for a private talk with Tito which would help to promote trade with Yugoslavia and perhaps do something to win Tito from the Communist group over to the West. But the Prime Minister replied that it would all be very difficult and irregular. As President Tito was the head of a government, he would need to get an invitation from the Queen. So the scheme fell through.

While in Yugoslavia, I met Dr. Stampar, a man of international reputation, chairman of the World Health Organisation, whom I had known in Washington in 1946. Tito had given him full power to reorganise and develop the universities and the public health service. A year later Tito sent for him and asked how he was getting on. Stampar said it was very difficult. 'The professors live in the nineteenth century, I live in the twentieth and the students in the twenty-first.'

## CHAPTER 28

### FOREIGN TRAVEL: CHINA

AT the Moscow Economic Conference in 1952 I had met the Chinese trade delegation and as leader of the British delegation had signed trade deals amounting to about £10,000,000. Hard bargainers, they seemed to me to be able, honest, and with a sense of humour. As a result of these deals I got to know several members of trade delegations to Britain and was introduced to Mr. Huang Hsiang the Chinese charge d'affaires in London who lived in what had been the Imperial Embassy of the Manchus. Here Dr. Sun Yat-sen, the original leader of the Chinese Revolution and the Republic's first President, when on a visit to London, had been kidnapped and held prisoner. He was saved from an Imperial execution by managing to smuggle out a note to an English surgeon who had taught him medicine and who took measures to have him released.

In order to get more information about China we invited Mr. and Mrs. Huan Hsiang to come north and stay with us at our home for a weekend. What we learned from them and from British business men who had visited China was so different from what we read in the press—especially in the American press—about what was happening in China, that my wife and I decided to go and see for ourselves. The resurgence of China, the oldest existing civilisation in the world with nearly a quarter of the total world population, seemed of far more importance for the future than some of the problems of the Western world.

We managed to get visas and set off in September 1956 via Moscow. The Russian plane from Moscow was of a small, old pattern. Our fellow travellers were about a dozen people from Mongolia who had been to Moscow for a chess tournament, and one or two people from other countries, none of whom could speak English. We broke the journey at Sverdlovsk where we stayed for the night in a very comfortable suite of rooms in a hostel adjoining the airport (and see page 254). On flying over Siberia we had occasional glimpses of the new cities and factories springing up there. During the flight my wife contacted the

Mongolians, and though neither could speak the other's language they seemed to get on very well by gestures and smiles. When we came down at Ulan Bator, the wives and children of our Mongolian fellow travellers were all there to meet them. The children, like children all the world over, ran to their fathers to get their presents, and were then so absorbed in examining them that they took no further interest in their parents. My wife was introduced to all the relatives and many friendly exchanges took place in spite of the language difficulty. Under the sunshine and clear blue skies we left with regret the historic town of Ulan Bator, the capital of what was once the greatest empire the world had at that time ever seen, stretching from China to the Danube. We resolved we would come back some day for a longer visit. From the plane we got a clear view of the tableland with lines of camels laden with goods going towards the city, and lots of horses. After a flight across the Gobi Desert and a look at the Great Wall of China we landed at Peking airport wondering what kind of reception we would get and how we would fare. To our relief we found that our friend Huang Hsiang had made arrangements for our reception. There to meet us with a car were Nan Han-sen, the head of the Department for Foreign Trade, Dr. Chi Chao-ting, and Mr Li who spoke English and was detailed to be our guide and interpreter for the visit. We were taken to rooms in a hotel and given cards of admission to the balcony for the parade for National Liberation Day on 1 October.

The parade, which was timed to start at ten o'clock and finish at two o'clock, represented all phases of Chinese life, the various trades with the implements of their trade, all the religious bodies—Roman Catholic, Protestant, Buddhist, Mohammedan and Taoist—each with their banners, and interspersed with jugglers performing fantastic feats, lorries with girls doing the Lotus Dance, and of course, the military. Across the street—‘The Boulevard of Perpetual Peace’—more than one hundred yards broad, were massed bands of many hundreds of instruments the music of which could only be heard at intervals over the cheering of a crowd of half a million people. At ten o'clock when the parade started the rain began to fall and it fell incessantly until two o'clock. Mao stood in a broad gutter at the front wall of the balcony where he could be seen by all the people. The water flowed over his shoes. I said to

my Chinese friends that in my country we would take better care of our chief ruler, and I feared that Mao would get pneumonia. They told me there was no fear of that as Mao, then a man of over sixty, when visiting Hankow had swum from one side to the other of the Yangtse river and back again. The people on the balcony, including the ministers and other distinguished people, were drenched. On looking up at the enclosure I saw Willie Gallacher, the British Communist and former M.P. sitting in the shelter high and dry, on a chair where the Emperor's chief official used to sit when he threw over his written instructions to the Mandarins on the balcony below. The British charge d'affaires and other distinguished foreigners were standing on a lower platform where like us they were soaked by the rain.

At two o'clock the parade stopped exactly to the minute. To have about a quarter of a million people on parade and arranged so that each section appeared from the various side streets exactly on time was a great feat of organisation. On discussing it later with the British charge d'affaires who was present with us on the balcony he said the Chinese had a marvellous gift for organisation. After two o'clock we went back to our hotel for a hot bath and to put on dry clothes. We thought the celebrations were finished for the day but we were taken out in the evening to a reception in a room in the Peking Hotel which accommodates over a thousand people and gives them room to move about. There we were given tea and other light refreshments. We were then taken to see the most marvellous display of fireworks. Fortunately by this time the weather had cleared up and the broad street was filled with crowds singing and dancing, while bands played. We were told that a display of the same kind was going on in every city and town in China celebrating the driving out of the European and Japanese armies so that, for the first time in more than a hundred years, China was free from invaders.

Next day was also a holiday and we were taken to the Emperor's Summer Palace which had been looted and then destroyed by the British in the second Opium War of 1857-60 to avenge the insult to the British flag flying from a Chinese junk smuggling opium, which had been fired on by a Customs gunboat. That was a good enough excuse for a victorious war against the virtually defenceless Chinese, who also had to pay a large indemnity to the victors.

The Summer Palace, which had almost been restored, was beautifully laid out and furnished as near as possible to what it had been when it was occupied by the emperors, and it now contained as many of the ornaments and other treasures as the new government had been able to collect. An interesting feature of the palace grounds was a marble ship. The government had collected taxes to build a navy to resist the Japanese, but the empress used the money to beautify the Summer Palace and erected the marble ship in the grounds—at least some of the money was devoted to a symbol of the navy!

While we were walking through the grounds, we thought we would have a rest in one of the tearooms. When we entered a waiter rushed to meet us, cleared a table for us and brought tea and some wine. He turned out to be a waiter in the hotel where we were staying and therefore regarded us as his special guests. Dr. Chi who was with us, introduced us to an old gentleman who was sitting with a party which included a number of grandchildren. He had been a wealthy Shanghai merchant and the leader of what would be the equivalent of the Conservative Party in this country and was now a Vice-President of the new China. He spoke English well and we had an interesting conversation. As we left I said I would have liked a longer talk with him, so Dr. Chi said he would try to get us an invitation to his house. We were invited to lunch, and after going through a doorway in the formidable wall which separated the house from the street we entered a beautiful garden, then went into the house which was full of books, manuscripts, and art treasures. It was an elaborate lunch and my wife complimented the lady of the house saying that it must have caused her a great deal of work to provide such a wonderful lunch. She replied that it was no trouble at all as the cook, with one assistant, prepared everything.

When I asked our host why he had been a leader of the party against the revolution and had now joined Mao's government, he replied that everything Mao was doing was good for China, and further, he was now better off under the new government than he had been before. He had been allowed to keep his wealth, the value of the yen was stabilised whereas, before, inflation was proceeding at such a rate that he would soon have had nothing left. He said there were many wealthy people like himself nearly all of

whom, with the exception of the warlords who had been deprived of their lands without compensation, were supporting the new government because they were doing better under it than they had previously. He gave me a little bust of Mao for whom he obviously had a great admiration, and a copy of a book of poems which he had written. The Chinese are great on poetry and philosophy. The army is regarded as the lowest of all occupations. Any general having his photograph taken has, instead of decorations, a book of poems in his hand, which he is pretending to read. We left after a most enjoyable visit. When we visited Peking two years later we met him again and he invited us to dinner along with some leading Chinese officials at a famous old, luxurious restaurant.

To come back to the Summer Palace, there were crowds of people all over the grounds dancing and singing. We stopped at one group where the leader of the revels seemed to be an Italian who was speaking to his group in English. When we asked him if he did not speak Chinese he said there were more people in the crowd—with the exception of the Chinese—who understood English than any other language. After two hours in the grounds we embarked beside the marble ship and sailed across the lake to the entrance. On a boat in front of us there was a crowd singing, and we found that the gist of the song was 'Universal Friendship' with a recurring phrase 'All the World has One Heart'. But when we came out to where the people were gathering to get into the buses we heard a group singing the well-known Aberdeen song 'We're no' awa' tae bide awa', with others joining in as best they could. We left, feeling that what with Willie Gallacher and others, Scotland had been well represented in this national holiday.

Next day our guide, philosopher and friend Mr. Li brought us a programme for our visit, which included a visit to the Great Wall of China and some of the new industries, which were turning out railway engines, aeroplanes and other modern industrial goods. We told Mr. Li that we had read all about the Wall and had seen it from the plane, so we would leave it out. As I was not an industrialist and would not be able to judge whether the factories were efficient or not, we would leave them out too, because I could read about them from reports by British industrialists who visited China. What I wanted to see first of all was the Ministry of Health to find out what was being done for the elimination of



disease which in 1949 made China probably the most disease-ridden nation in the world. Then I wanted to see the Ministry of Agriculture to find out what was being done to provide food and prevent the recurring famines from which China suffered and in which millions perished from hunger. And then I wanted to see the Ministry of Education upon which the future of China depended. I wanted to be allowed to have an interview with these ministers, and then see as much of the country as I could, to verify what I had been told, and after that, if there was time, to see the water conservation of the Huai River which periodically flooded the fertile plain. I had read about this and it seemed to me to be a project greater than the building of the Pyramids of Egypt.

The Minister for Health turned out to be a very intelligent woman who had had a Western medical training. She said that since 1952 when the new government had restored law and order to the country, six new hospitals had been built in Peking and many in other cities, but the main work was the elimination of disease. She said that smallpox, which had been a great scourge, had been eliminated by vaccinating every child at birth and twice again before the twenty-first birthday. Intestinal infections caused by impure water and spread by the enormous amount of flies had been got rid of by putting a clean water supply into every city and town, and by eliminating the flies and mosquitoes by cleaning up all kinds of refuse in which the flies breed and filling up pools of stagnant water on which the mosquitoes breed. Plague carried by rats, and other diseases carried by animals had been wiped out by a nation-wide campaign to eliminate the rats, and all the dogs in North China had been killed off lest they carry some of the germs which they said the Americans had used in biological warfare in Korea. We saw no dogs in Peking, but there were lots in the south of China.

I asked how it had been possible to carry out this tremendous public health drive in view of the fact that China had less than 20,000 doctors trained in modern medicine. She replied that it did not need a seven years education to train intelligent young people to vaccinate against smallpox or even to use preventive inoculations where there was an outbreak of intestinal infection. Thousands of medical technical assistants had been trained to do this work. In addition, every village and district had health

committees which were responsible for the cleaning up of its area. This must have been very successful because in Peking which used to suffer from a plague of flies, we saw fewer flies than in any town in Britain in the summer time.

So thorough were they in preventing any refuse in which flies could breed that the donkeys and mules carried little bags under their tails to collect the droppings. Shopkeepers had to wear a mask across the mouth and nostrils in case they should convey infection by breathing on the foodstuffs which were all kept under cover and supplied in cellophane bags. A cigarette dropped in the streets of Peking would have been picked up at once and disposed of. We saw an occasional person in the street wearing a surgical mask across his face and nostrils. These, we were told, were people who were suffering from a cold. They wore the masks to prevent the spread of infection. In all the villages we visited we found a medical centre with a few drugs and surgical instruments for the treatment of minor injuries, but the main work for the centre was in carrying through the public health measures for the elimination of disease.

I thought it would be interesting to see what the new hospitals were like. When driving through the city I noticed one, with an older, much smaller building beside it which I was told was established by an American Methodist missionary school and was now used for out-patients. I rang up the medical superintendent of this hospital and was given permission to visit it. We were received in a sitting-room by about half a dozen of the senior doctors and surgeons, and after the usual drink of green tea had a general talk about the recent advances in modern medicine. Even with my limited knowledge, it was obvious that they were keeping up to date with the advances being made in Western countries. We said we would like to see some of the wards. We had to take off our shoes and jackets and put on white coats and hospital slippers to minimise the risk of carrying in infection from outside. There were no large wards with thirty or forty patients as in the hospitals in this country. Seriously ill patients had single rooms, and others not so ill were in double-bedded rooms where the companionship of another patient might be beneficial. The largest ward was for eight people who were able to be up and dress themselves and find amusement in reading, playing chess and other games. We were

allowed to look through a glass partition at the operating theatre where the surgeons were at work on a patient. The equipment looked just the same as would be found in a British hospital. As this was the hospital we had asked to see we assumed that the other five new ones which had been built were just as efficient.

Having had a look-see at the results of the work being done by the Minister of Health we went back to see her to congratulate her and find out what effect this health drive had had on the death rate. She said that the health statistics for the whole country were not sufficiently organised to give reliable data. She had the Peking figures for the infant mortality, a pretty good indication of the state of health. It had been reduced from an estimated figure of well over a hundred per thousand to about forty. She said this improvement was reached in all the other cities. So far as she could see there was no fall in the birth rate and it was estimated that the population was increasing by about 12,000,000 a year. From what I had seen and the figures she had given me, I said I was sure it was increasing at about 15,000,000 a year. This was found to be the case a year later, and within a few years, unless the birth rate is reduced, it will reach 20,000,000 a year. I said that the increased number of people to be fed, clothed and housed would be a serious drag on the rise in the standard of living, and suggested that propaganda for birth control was desirable. When we went back to China on a second visit in 1959 we found that there had indeed been propaganda for birth control, but as the production of food and consumer goods was increasing more rapidly than the population it had been decided to abandon birth control.

Next on our list was agriculture. We visited a number of villages to see how the co-operative method of farming was doing. Most of it was still primitive, with very little mechanisation, and therefore carried on by laborious hand labour. They were obviously expert farmers with the limited facilities available. The Minister of Agriculture told me about new land in the north-east which was being brought into cultivation with tractors and other modern equipment. I suggested to him that they would get a much more rapid increase of production by applying fertilisers, using modern equipment and sowing better seeds on the fertile land under cultivation. Unfortunately for China, they were unable to import a

sufficient number of tractors and could only get a limited amount of fertilisers from Japan and certain Western countries.

Although many foods were rationed there seemed to be enough for everyone. Taking together the food which could be bought in the shops and the meals available in hotels and restaurants without ration cards there seemed to be sufficient in the cities and no shortage among the peasants who formed 80 per cent of the population and had the first call on the food produced. So far as we could see there was no sign of either hunger or malnutrition.

When we went back in 1959 there had been a big improvement in agriculture and the little farming communities were using implements made by themselves, iron being obtained from a smelting works using local available coal and iron. The harvest that year was so big that a lot of it was lost for lack of storage facilities. Since then there have been three of the worst droughts and floods for a hundred years with disastrous effects on the harvests. China, owing to the development of its industries and foreign trade, had sufficient funds to buy up the surplus wheat of Canada and Australia and barley from West Germany and France. According to the reports of a former President of the British Board of Trade, Field-Marshal Montgomery and others, there is still no evidence of hunger and malnutrition. Had it not been for the great advances made since 1952, there would have been famine with the resulting death of many millions.

We next had a look at the educational facilities. There was a terrific drive on for education for all. In the cities and villages any person who could read and write was forming classes to teach the others. In the factories time off was allowed for this educational work. In the villages the peasants were so keen on education that in addition to the classes held in whatever buildings were available, they had symbols outlined on their backs so that when working in the fields in the hot weather, with their backs bared, they could look up and read the back of the person in front of them as if it were a blackboard. The Chinese language is so complicated that it took the Mandarins years to learn it so as to be able to pass the examinations for the civil service. Now a new alphabet has been worked out with about thirty symbols which express every sound in the language. This, when brought to full fruition, will be used for all the different languages in China and be a valuable means of

unifying the many provinces with different languages. In the meantime a simplified alphabet with a few hundred words has been promoted to induce the semi-literate to read simple statements in the pamphlets issued by the government.

We sent a message to the Peking University saying that the Chancellor of a Scottish University would like to call and pay his respects to the head of the Peking University and convey greetings from his University. When we arrived we were received by the head along with some of his colleagues and shown, first of all, the campus which was most extensive and beautiful. There was a lake for boating and playgrounds for basketball, tennis and other games. We were then taken to have a look at the buildings which had been increased by over 50 per cent since 1952. We saw the Department of Physiology—my own subject—and found it as well equipped for teaching research as any in this country. They wished to trail me around the other laboratories of which they were very proud, but I said I was sure they would all be as efficient as the one I had seen.

After this we went to dine with some of the senior members of the staff. When I asked how many medical students they had they said 'None' ; how many agricultural students—'None' ; how many engineering students—None'. 'What then do you teach?' I asked and was told 'Literature of all countries and their religions, economics, forms of government in other countries, and trends in international affairs and many of the students were engaged on fundamental research in the different sciences'. I remarked that as they were not being educated for any of the professions or as leaders in industrial development, what was the object of their education and what would they do when they graduated. I was told, 'Here we wish to turn out men of knowledge and wisdom. Some engaged in the fundamental sciences might become heads of some of the technical colleges, and others would be the new civil service of China.' I then said it seemed to me that what China needed was an enormous number of trained technicians, and I was told that round Peking there were forty technical institutes where students with secondary education were trained for whatever industry they decided to enter. There was one for textiles; one for oil drilling and refining; one for chemistry; one for engineering; one for agriculture; and indeed one for each of the many industries in

China. The students spent four years in theoretical education combined with practical work in the factories. In about twenty or thirty years' time, China will have the most highly trained technicians and the best educated civil service of any country in the world.

Later when driving through one of the towns we noticed a big new building and were told it was a new agricultural institute. We said we would go in and have a look round for a few minutes but it was two hours before we came out. It was the best equipped agricultural college I have ever seen, and it was also used for the education of the peasants. They were shown illustrations of the effects of different kinds of manuring; the pests which destroy crops and the means of dealing with them; the effect of improved seeds and so on, together with charts showing the anticipated increase in production in each district in the province. These technical colleges are turning out hundreds of thousands of highly trained technicians every year.

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We had now got an idea, vague though it might be, of the position of food, health and education in the country; next we went to the Minister in charge of natural resources. China has the biggest coal reserves in the world—apart from the United States—which are well spread over the country, and the iron deposits are often found in the same areas as coal. It is also rich in nearly all the minerals required for industry. We were told that there were about four thousand young people exploring all regions and sending back specimens of rocks to be examined in the laboratories. We had heard what appeared to be rather exaggerated stories about an enormous oilfield, but the Minister told us to disregard extravagant statements. It was true that they had what seemed to be vast oilfields, but all they knew was that wherever they drilled in a certain area they struck oil. As they had not yet properly explored the area the extent of it had not been ascertained. The difficulty was that the oilfield was in the north-east where there was a lack of roads and railways linking it with the industrial centres, but these means of transport were being rapidly pushed forward.

Another source of power not yet fully developed is hydroelectricity. In the extensive eastern plateau with mountains over

6,000 feet high there is a very high rainfall and the water comes pouring down the rivers causing great destruction by flooding. The rainfall of some of the monsoons is being stored in huge reservoirs, some already built, some in course of construction, and harnessed for hydro-electric plants. We had read about this before going to China so we went to the Minister in charge of water control. This man had been the last undefeated general under Chiang Kai-shek with an army defending Peking. When Mao Tse-tung was ready for the attack he sent in messengers asking the general to surrender. He refused, so Mao again sent messengers to say that they would attack for so many minutes to show them that the defence was hopeless. Then once again he sent messengers demanding surrender but also inviting the general to come over to take charge of the most difficult task of China's reconstruction—the harnessing of the rivers to stop flooding and to provide water for irrigation in time of drought—an offer which was accepted.

We asked the Minister if we might be allowed to visit the Huai River Basin which we had read about. Permission was granted and we set off to Hsuehchow on the lower reaches of the Huai River. We were accommodated in a nice modern hotel, and the next day were shown a big model of the scheme. There were twenty-nine rivers flowing into the Basin. On five of them dams had been built and the hydro-electric plant completed, providing electricity for some of the towns. Others were in course of construction. I picked out one—the Meishan Dam—and said I would like to visit it. I was told it was impossible, as it was too far away, the road to it was rough and there was no hotel. The only accommodation would be a rough bed with no modern sanitation. There were, however, most interesting dams and sluices which could be visited in a day, and we could get back to the hotel the same night. The more reluctant the officials were to take me, the more I insisted on going.

At last they said, 'All right, we have warned you, but we will take you there', so we set off next day on a drive of about two hundred miles up into the mountains. We paused on our way through some of the villages to have a look at the people. As soon as the car stopped, a crowd first of children and then of older people gathered round us. They seemed greatly amused by our strange dress and even more by our long noses. We were told they were

calling, 'Come and see the long noses'. The Chinese nose is short and broad and ours were rather longer than the European average. However, the crowds were all good humoured, laughing and joking. I made some feeble jokes which the interpreter translated, and they were received with great bursts of laughter.

Towards evening we reached the Meishan Dam, the headquarters of the Huai River project. There it was, so far as one could judge, exactly as had been described. Next morning we were taken up in a lift to the top. We made a rough measurement of its size by pacing out the lengths, and an estimate of its height, all of which seemed to agree with the figures given. We were told that as far as was known, there had never previously been a European or even a Russian in that rather wild and desolate area. When we got back to Hsuechow we told the senior officers we had never doubted their word, but it was important we should see the project, because we would then be able to say we had visited it and verified the statements made about it. There was a lack of modern equipment for the project and much of the work was done by hand labour. There were 4,000,000 men working on the scheme except during the spring when the crops were being sown and in the autumn when they were being harvested. They were paid what appeared to be a reasonable wage, which augmented their incomes from the farms, so there was no difficulty in getting labourers for the work. This is one of the many projects for water control to prevent flooding and provide water for irrigation and electric power. Just beginning at that time was the Hsianan project which by 1960 had four 72,500 kilowatt generators installed in the power stations, with five more being added to give a total generating capacity of 650,000 kilowatts. It was designed, built and equipped by Chinese engineers with Chinese-made machinery.

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At the same time as we were seeing as much as we could we had got information about the economic and political set-up. We were told that before the new regime corruption had been rampant but had been eliminated. This was how it had been done. The government had called upon all Chinese whom they knew to have been engaged in corrupt practices to report to the chief town in each province to tell how they had gone about it. They had to give an undertaking that they would never practise corruption again, in



which case they would be allowed to keep whatever they had acquired in this way. But if anyone continued, after having agreed to stop, they would be severely punished. Some of the 'big shots' thought that as corruption had always existed it would continue to do so and they would carry on making something out of it. But Mao had trained large numbers of youths and planted them in industries and financial centres to report back. When reports came that some people were still engaged in corruption, the government pounced, not on the small fry but on the biggest and wealthiest, brought them to Peking, gave them a public trial, and told the people that they had been convicted of corruption by stealing funds and resources which belonged to the people of China, after they had given their firm promise that they would become honest citizens. Then they were condemned to death and their heads chopped off in full view of the people. One or two convictions like that and corruption ceased.

Another interesting feature of government policy was the stabilisation of the yen. Before the new government gained power, inflation had been so bad that when workmen got their wages they rushed to the shops before the value of the yen should fall further. The new government, now they had control of everything coming out of the factories to the shops, had adjusted the issue of paper money to the available supply of consumer goods. As these increased, wages and salaries were increased to maintain a balance between the currency and the available goods. The prices of necessities like the main food-stuffs, cotton cloth, or fuel were kept low, but the price of luxuries like wrist watches, fountain pens, and nice clothes seemed to us to be very high. The national revenue of the country was derived partly from taxes paid by the peasants on their production, and partly by the profits made on the sale of consumer goods.

In the three weeks we stayed we had seen quite a lot of China in the towns and villages, but we never saw any evidence of hunger or malnutrition. The children especially looked healthy, robust and happy. The clothing was the uniform san-yat-sen in grey or blue, convenient for working in but drab and dull. We never saw anyone in rags, ill-clothed or ill-shod.

Coming near the end of our visit we asked to be taken to Shanghai because we knew there were a number of British people

still there. I called on the British consul and told him where I had been, what I had seen, and my impressions of the country. I said I would like to meet some of the British people to see whether my impressions were right or whether I had been brain-washed by the people I had met. I asked to be introduced to about half a dozen of the leading British residents. When the secretary was about to telephone them, he stopped and said, 'I will do better than that. I will invite about a dozen of them to lunch tomorrow.' At the lunch, we asked about corruption, about the stabilisation of the yen, about the elimination of disease, and the rise in the standard of living of the workers and peasants. They said my estimate was correct. The change was miraculous but there was no doubt it had taken place.

Some of these Shanghai residents, however, had complaints against the government. The manager of the Sassoon Properties complained that the government had taken them over, and the rent paid by the government was not sufficient to maintain the buildings in good order and leave enough profit on them. I suggested that as the big landowners had been completely deprived of their possessions without any compensation the government seemed to have been rather lenient with foreign landlords. The head of Patons & Baldwins woollen mills said that the government, which controlled the supply of raw materials, would not give them sufficient wool to keep their factory fully employed even though they had raised the wages of the workers and given a guarantee that any profit made after taxation would be retained in the country. They were being forced to discharge workers, and he asked me to go back to Peking to put their case before Mao Tse-tung or Chou En-lai. They could get no satisfaction from the local official but were sure that if I were to go back and explain the position to Mao Tse-tung or Chou En-lai they would see that justice was done to their mill and workers. That, of course, would have been unwarrantable impertinence on my part. I refused but said that when I got back to London I would report to Mr. Huan Hsiang, the Chinese charge d'affaires, and mention the difficulty Patons & Baldwins had in keeping their workers employed. I did this expressing my views on the matter but making no suggestion that he should take any action. About two months later I had a letter from the manager saying that the government was now supplying raw materials to give full employment in the mills. Some

time later I learned that Patons & Baldwin had closed their factories as the conditions under which they had to work made them unremunerative. I would like to express here my appreciation of the great kindness of the British consul in Shanghai who not only gave us his own view but brought together the leading British business people whose views I had no difficulty in accepting, the more so as they confirmed my own impressions.

Next day we asked our Chinese guides to take us for a drive through the slums of the city which were notoriously bad. We were told that they had macadamised the roads, which previously in dry weather were very dusty and in wet weather muddy. They had put electricity into the houses, which we verified by seeing the electric light bulbs. In addition they had taken 30,000 people from the worst houses and built a satellite town on the outskirts. We were taken to see it and found a model new community with two-storey blocks of apartments with shrubs and flowers between each block. There were also schools, a medical centre, and a big modern shop. Some of the accommodation was in single rooms for old-age pensioners. The size of the other houses varied from two to four rooms, allocated according to the size of the family. Every house, even the single apartments, had their own private toilets. In addition to simple facilities for cooking, they had the use of a big communal kitchen for cooking, clothes washing and so on. The houses were not up to the standard of British municipal houses, but they were so much better than the hovels they had formerly inhabited that the people thought they were wonderful. They would show off with great delight their rooms and furnishings of which they seemed to be inordinately proud. The official told us that the improvements were all that they had been able to achieve since 1952 when law and order had been established, but if we would come back in a few years we would find that all the present inhabitants of the slums would be re-housed in comfortable, hygienic houses.

China's progress in every way is undeniable. Lord Chalfont, British Minister of Disarmament, was voicing a widely held point of view when he spoke recently to the Foreign Correspondents' Club in Tokyo. 'In twenty years', he said, 'China will be the most powerful country in the world. She should be brought into the United Nations.'

## CHAPTER 29

### VISIT TO CUBA

ON OUR last visit to America in 1962 we had three or four days to spare before returning home so we went to Cuba to see how the revolution was progressing. Our last visit had been in 1947. When we arrived at Havana everything seemed to be running normally. Policemen were directing the considerable flow of cars and buses. The telephone services were working well, as were the banks and the exchange of money at the airport. The people looked contented, and everywhere were posters with the slogan 'Patria o Muerte ! Venceremos !'—'The Fatherland or Death! We mean it!' When we arrived at the airport we heard someone giving a broadcast on the radio and were told it was Dr. Castro. Two hours later, after we had reached our hotel and registered, we found he was still talking. We were informed that he often talked for two or three hours without a stop.

It was in the three formerly fashionable hotels that the biggest change had taken place. When we had last visited Havana, these three hotels had every luxury including cabarets, but this time when we went into our hotel it was crowded with ordinary working people. The rooms were scrupulously clean and the service was good and included morning and afternoon tea brought to our room. The service in the restaurant was good too, with an abundance of bread, rice and other cereals, but no butter and very little milk, due, we were told, to the long drought which had reduced the production of milk. There were three choices of food for lunch and dinner, none of them very appetising. There was little meat or fish. We were told that the fishing boats could not go out far from the shore because the American naval ships were patrolling the coasts.

We were taken to see their new housing, which we thought was the best we had seen in any country we had been in. They must have had excellent architects because the arrangement of the houses formed a pleasing community with a school and medical centre. The houses themselves had beautiful little pieces of ironwork and other artistic decorations. We asked a man if we might

see over his house, and he kindly took us inside. His wife showed us all the rooms, and they were very well equipped. The couple had come out of a slum and the wife expressed great delight in her lovely new home. We were also taken to a pleasure resort where there was a swimming pool, a playground for the children, restaurants and other facilities for people to enjoy themselves.

We asked to see some of the countryside and drove out about fifty miles from Havana. We passed through villages where the people seemed to be quite happy going about their business, and the shops had luxuries in the way of fruit and other things not available in Havana. The peasants, who had got control of the land, were enjoying some of its fruits which had formerly been sent to Havana for export. At one of the villages we had a much better lunch than we could have got in the Havana hotels. We were shown an agricultural research station which was being built on a grand scale, with experiments in poultry, pigs, cattle, and on some crops. Owing to the difficulty of the language and the lack of time, we were unable to learn anything about what research work was being done.

We visited the University, as we did in every country we went to, because it is amongst the students and recent graduates that revolutions begin. Our usual custom was to send a letter to the head of the university saying that as Chancellor of the biggest University in Scotland I wished to call and convey greetings to his University. This always assured us of a welcome. We were taken into a room where there were about twenty of the teaching staff. They were all in favour of the new government and enthusiastic about the reforms being carried out, as they were about the increased grants given for the extension of the university to double the number of students. The students all seemed to be armed, as were the men and some of the women among the rest of the population. There had been a special Students' Corps fighting for Castro, and on their campus was a British built tank which they had captured from Batista's army.

We called on one or two of the ministers and were told about their plans for industrial development and their difficulties owing to the fact that their cars and machinery had come from America. Because of the trade embargo, it was impossible to get spare parts for repairs. They were now changing over to Russian and Czecho-

slovakian machinery for which they were paying mainly by the export of sugar which had formerly gone to the United States. We asked about the confiscation of the land, a part of which had belonged to American companies and were informed that compensation up to the level of the equivalent of about £7,000 a year was offered to Cuban owners but decreasing from year to year till it reached zero in about ten years' time. A number of wealthy Cubans had gone off to the United States and they received no compensation. The houses they had left were taken over and used as schools or health centres. A number had stayed behind and we had a look at some of their houses. They evidently had servants, and had one or two cars in their garage.

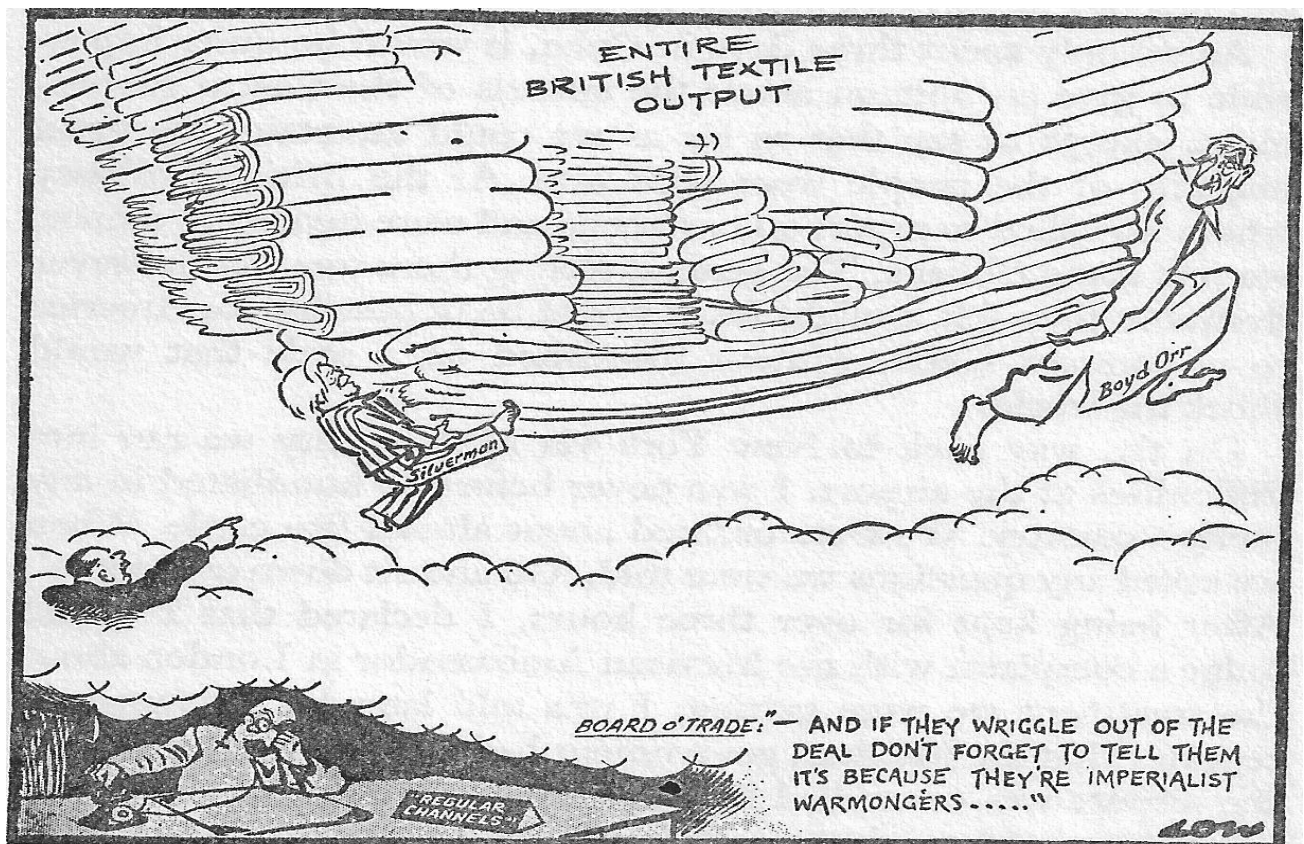
As we only spent three days in Cuba, it would be quite impossible to give an opinion about the success of the Castro government, except to say that as far as we could ascertain, the great majority of the people were with him. At the British Embassy where we called to report our presence and were invited to dinner, we met some Cubans. The general feeling there was that however desirable they felt it might be, it would be impossible for America to re-conquer Cuba, without bloodshed on a scale that would shock the world.

On the way back to New York via Mexico City we ran into difficulties at the airport. I was never before so humiliated in any foreign country. We were ordered about almost like cattle. When we asked any questions we were told, 'Go and sit down over there'. After being kept for over three hours, I declared that I would lodge a complaint with the Mexican Ambassador in London about the treatment we were getting. I was told later by a newspaper reporter that the Mexican government had nothing to do with it as the airport was controlled by the United States and the officials were instructed to give a rough passage to anyone coming from Cuba. I refuse to believe that the C.I.A. would indulge in such childish measures.

## AND SO BACK TO BASE

And now after many years we are living on our farm near Brechin with our daughters, our sons-in-law and our grandchildren living near us. Near us too are our friends, the distinguished scientist,

previously head of Rothamsted Experimental Station in Hertfordshire, Sir William Ogg and Lady Ogg, whom we had known in our Aberdeen days. One son-in-law was educated at Eton and Trinity College, Cambridge, and is related to the hereditary aristocratic families of the country. The other is the son of a small farmer in Wales, educated at a college of agriculture, was in the civil service at the beginning of the last war and ran off to join the army. He left as a lieutenant-colonel. These and the seven grandchildren are all around us under the benign rule of my wife, the Queen Bee.



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### TRADE WITH MOSCOW (UPPER LEVEL)

A cartoon by David Low appearing in the *Daily Herald* in 1952.

## PART VII

# Summing Up



## CHAPTER 30

### WORLD UNITY AND PEACE AND THE HOPE FOR THE FUTURE

SINCE getting back from America in 1948 my main interest, apart from business, has been in international affairs. I have been a member, often holding office, of many of the non-government organisations working for a world government able to prevent war and bring about the co-operation of governments for the promotion of human welfare. I have attended conferences in many countries from Tokyo in Japan to Chicago in America. From information gained from these and other sources it seems to me that the fundamental cause of the present turbulent phase in the evolution of human society is the terrific impact of modern science, and its most important manifestation is the release of nuclear energy. This has been applied first in war. It is estimated that the total of nuclear weapons in the world is now equivalent to ten tons of high explosives for every man, woman and child. This tremendous power to cause death and destruction is predominantly in the hands of America and Russia. It is reckoned that America has the equivalent of 150 tons of TNT for every man, woman and child in the Soviet Union, and China and Russia are surrounded by American bombing bases. But Britain, France and now China have joined the nuclear club and some other countries are preparing to produce nuclear weapons because the power and prestige of a government is thought to depend mainly on its capacity for mass slaughter and destruction. Then there are biological lethal weapons upon which much 'hush-hush' research is being done. Dr. Brock Chisholm, who in the last war was in charge of biological warfare, has said that biological warfare can be as powerful an instrument of death as nuclear weapons.

In the present inflammatory atmosphere of international politics this is extremely dangerous. The people of the world have been warned. Earl Mountbatten, formerly chief of the defence staffs, told a student gathering on 15 October 1963, 'If the West can destroy Russia several times over, that is not much good if Russia can destroy the West twice over. There would be

nothing left of civilisation. We must come to disarmament. If that is not done, you students will never live to use your education.' President Kennedy gave this warning: 'Every man, woman and child lives today under a nuclear Sword of Damocles hanging by the slenderest of threads capable of being cut at any moment by accident, miscalculation or madness. We must abolish the weapons of war or they will abolish us.' According to a statement in the Daily Express of 8 September 1963, President Johnson has said that in the first exchange of nuclear weapons one hundred million Russians, one hundred million Americans and one hundred million in Western Europe would be killed. When that exchange was over our great cities would be in ashes, our fields barren, our industries destroyed and our dreams vanished. That means that within a few hours of a nuclear war about half the population of America, Russia and Western Europe would be dead, and the radio-active fall-out would bring about a more lingering death to most of those who remained. A ten-megaton bomb is enough to destroy any big city. A simple rule is that one bomb would cause a ten-mile radius of destruction. Under these conditions of a 'peace of terror' no great power will willingly start a nuclear war. The danger is that it may start by accident, or because one side believes that the other side is about to start it and so lets loose an attack to get the advantage of a first strike. It is amazing that, living as we are on top of a rumbling volcano which could shoot up and wipe out the human race, people are so apathetic. The prospect is so horrible that they do not like to think about it or believe that it could possibly come true.

On the other hand, science which produced these lethal weapons has also given us the means to produce in abundance sufficient food, shelter, clothing and all the other physical necessities of life for every person in the world, and to eliminate in one generation preventable diseases. Such is the alternative facing mankind today, a holocaust of death and destruction or a wonderful new era free from the intolerable fear of war, poverty and disease, an era of international co-operation and friendship between all nations. Through a military and industrial complex, the United States is on a permanent war economy difficult to change without an economic upset. Yet, while America is spending so much money and human lives trying to stop the march of Communism,

according to the American Journal of Public Health 38,000,000 of its citizens live in poverty. Gunnar Myrdal, in *Challenge to Affluence*, puts the figure at 40,000,000 and estimates that 12,500,000 are living in utter destitution. The United Kingdom since 1952 has allocated £2,500,000,000 on military commitments abroad (a report by Rudolf Klein in the *Observer* of 2 January 1966) and yet there are still people living in hideous slums. In Glasgow, for example, in a recent investigation, it was found that half the children were suffering from anaemia and one per cent from rickets, these almost entirely among slum-dwellers. This could be eliminated by providing decent houses and bringing back a form of Woolton's wartime food policy which brought food adequate for health within the reach of the poorest family.

America and Russia, with their allies, could bring about general disarmament and make the United Nations a world government with power to maintain peace through international co-operation for the mutual benefit of all nations—the only alternative to a nuclear war. Unfortunately these two great powers are divided by the ideological conflict between Communism and Capitalism. It is important to make clear what we mean by these two terms. Communism is generally regarded as an economic system in which the government owns the capital of the country and exercises full control over industry and everything else. In a capitalist society, the capital is owned by individuals or groups of individuals managing the industries in their own interests with minimum government control, no governmental interference with free enterprise, and with political freedom for the individual.

In Britain in the hungry forties of the nineteenth century there was almost complete freedom for free enterprise in business. The 'Masters of Industry' made great fortunes while the people lived in abysmal poverty. Young children worked long hours in the mills and women in the coal mines hauled trucks of coal crawling on their hands and knees like beasts of burden. With the spread of education the power of the workers increased and the government was forced to take increasing control of industries and promote social measures to improve the condition of the workers until today we have 'the Welfare State' with a high standard of living for the ordinary people, free education up to university level, free

medical care, unemployment insurance and other measures to prevent poverty.

In the last two wars, when Britain was engaged in a life or death struggle, the government did adopt a form of communism by taking complete control over industry. Even in America, the land of free enterprise, the government has taken some control of industry and finance for the good of the nation and now President Johnston has brought in his most commendable measures in the United States for medicare, improvement of education and other means of eliminating poverty.

In Russia, where Communism originated, the country was in abysmal poverty after the First World War and afraid of another attack from the West. The government took complete control of industry and ruthlessly killed or imprisoned any individual not conforming to every government measure, but when the Soviet Union became wealthy and there was no longer fear of an attack from the West, government regulations were gradually relaxed, with more freedom of speech and expression for the individual. The rise of a free thinking middle class is beginning to have the effect of creating a powerful public opinion. In China in 1948 where the people were probably the poorest in the world, a totalitarian government under Mao Tse-tung was established; the government became less ruthless and now, as the country's wealth has increased, people are no longer forced to conform in clothing or other ways. There is in fact considerable inequality of incomes, with millionaires being allowed to keep their wealth so long as they support the government.

In a state of emergency, as in war or when there is need for a rapid increase of wealth to eliminate poverty, complete government control may become necessary to ensure that the national effort is successful. Britain during the last war doubled its home food production, and industrial output, including arms and munitions, was more than doubled. Russia and China, the big Communist countries, have greatly increased their wealth, which has meant a rapid rise in the standard of living of their people. In China, where hunger was endemic, nobody need now go to bed hungry, no old people are left uncared for, and the killing diseases like cholera, smallpox and dysentery have been eliminated. In Russia before the revolution 85 per cent of the population were

illiterate. Today it has one of the best educational systems in the world. Its public health services are so good that the death rate per thousand births in 1952 was 7.5 compared with 9.7 for the United States and 12.2 for Britain. These figures were confirmed for me by the Scottish Department of Health. Today the real division of the world is not between Communism and Capitalism, which would gradually disappear if there was no threat of war. If the threat vanished America and Russia would become like the more politically mature nations of Western Europe. The big division is between the white races and the coloured races. In the nineteenth century the European nations, with America as an off-shoot of Europe, held between them military and economic control of practically the whole world. The coloured races in what are now called the underdeveloped countries have in the last few decades an increasing number of people who are getting an education, and many of them are competing successfully with the so-called superior white races. In 1963, Joseph Wosurun, a Ghanaian, was the most distinguished graduate in his class of 240 students at Glasgow University. Also the radio, cinema and television have shown them the great difference between the wealthy white people and themselves, and they are in revolt against their poverty and against their former white rulers whom they blame for exploiting them and causing their poverty.

The old European empires at first tried to maintain their political and economic control by military force or by setting up minority puppet governments. They found, however, that it is easier to rule than to administer and as popular opinion against the use of force grew, they were forced to give freedom to the countries they controlled. Britain was unable to hold India, the Dutch to hold Indonesia or the French to hold Algeria. Now these nations have given liberty to their former colonies and assist them with finance and experts to establish their own form of government. These former colonies are so proud of their new freedom that though they are glad to accept help from Communist or capitalist countries, they will never become subservient to either. They are more likely to join each other as the non-committed countries. Patrice Lumumba, nationalist leader killed in the Congo, said at an African Conference in 1960: 'The new Africa shall not be Ameri-

can British, French or Russian, but African'. And many other African leaders have spoken in the same vein. Some day we may have a United States of Africa growing in industrial and military power. The great danger is that the struggle for liberty by the underdeveloped nations may flare up into a nuclear world war.

The United States of America is now blamed by the coloured races for trying to replace the imperialism of the European countries, but where the majority of the people are demanding liberty, the increasing use of force only increases bitterness and hatred of the white nations. No doubt it is with the best intentions that America is fighting in Vietnam to prevent the spread of Communism, but with a force of twice as many soldiers as Wellington had at the Battle of Waterloo they are finding it impossible to defeat a small nation of about 17,000,000 people; and they say they are only willing to negotiate from strength—which means they aim to force the ordinary people to conform to the will of the more powerful nation. The real friends of America are anxious to bring to an end the war in Vietnam, to persuade the Americans to get out without loss of face and try not to lose the trust of the coloured races for the white.

The most important question today, when the terrific advance of modern science has shaken the economic systems of the twentieth century, is whether man has attained the wisdom to adjust the old systems to suit the new powers of science and to realise that we are now one world in which all nations will ultimately share the same fate. The only hope of survival, as so many statesmen who are not in office and other intellectuals have realised, is a world government able to keep peace by getting the co-operation of all nations, including China, as political equals, on a basis where their influence is adjusted to the size of the population. Some people believe that man's wisdom has not kept pace with his scientific achievements, and the wealthy privileged nations will continue to exercise their powers to retain their privileges. H. G. Wells was optimistic about this ideal of one world but in the end became pessimistic. Bertrand Russell in the House of Lords in Britain a few years ago said that there was not more than a fifty-fifty chance of any human beings being left on the earth at the end of the present century. Similar expressions of pessimism could be quoted from many men of great

intellectual ability. On the other hand, many believe in and are working for that great ideal. Unfortunately, as Sidney and Beatrice Webb wrote in one of their books, the government of England is, on an average, about nineteen years behind the views expressed by the more intelligent part of the population. Today it would be dangerous to wait for nineteen years. The world is moving in the right direction but not quickly enough.

The world is now so small that athletic competitions are held on an international basis like the Olympic Games and the European international football matches. The business people are anxious to cut across political boundaries. Most European countries are anxious to trade with Russia and China; for example, President de Gaulle, realising that China will in a few years be the most powerful military and industrial country in the world, is seeking closer trade links with both Russia and China. The Krupps organisation of Germany, which made arms for the Hitler regime, was asked by the Western powers to make them for Western Germany and is now in co-operation with the government of Poland in developing their industries. Scientists recognise no political boundaries and meet in international conferences with representatives from both Communist and capitalist countries. With the increase in tourism many thousands of people are now going to Russia, and hundreds going to China; they are finding that the people of these countries are just decent, ordinary men and women like themselves with the same hopes and aspirations.

The many non-governmental organisations to which millions of people adhere in all countries are continually holding conferences to consider ways and means whereby we can attain peace, economic prosperity and international friendship. It is difficult, however, to get governments to realise that this is the only road for the survival of our civilisation. After the First World war President Woodrow Wilson tried to usher in the new era by setting up the League of Nations for which the European countries were not ready. Their governments tried to build up the old system which collapsed in the Second World War, and unless the present efforts succeed, our civilisation will collapse in a third world war. It is a race against time. The hope is that wisdom may prevail and the great powers of science be applied in co-operation by all nations to create a wonderful new era free from the intolerable evils of war.

poverty and disease. Then we will have a world in which the people of all countries will rise to a higher standard of living and a higher culture than has yet been attained by the most privileged people in the most privileged countries of the world. Such is the world which the present statesmen could, if they were wise, hand on to our children.