INTRODUCTION

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§ I. An Account of Human Activities Throughout the World and of the Reasons for These Activities

HIS book is intended to be a picture of all mankind to-day, a picture of living mankind active, working, spending, making and destroying. There are, we are told, one thousand nine hundred million human beings more or less. They all breathe, eat and sleep, and they are otherwise engaged in the most various activities. They co-operate with one another, and they are in conflict with one another. They die, but continually more are born to take up and extend the activities the dead have relinquished. We seek here to give all the activities in one crowded picture. And further, as our show goes on, we shall put and seek an answer to certain questions that arise naturally out of this spectacle. What sustains all this world-wide activity? Why do these millions live as they do? What are the various manners of living, and what are the motives that lie beneath these various manners of living? That is what we have to display and attempt to elucidate. The "How" is first to be shown and then the "Why?" has to be answered.

Such a general picture of all mankind about its business has not been attempted before. It would have been impossible before the present time, and had it been possible it would have been of doubtful utility. Now it has become possible, and it has been attempted because it is needed. Never before has there been this need and desire to "get the hang" of the world as one whole. Quite suddenly it has come upon us.

There have been some very great changes in the circumstances of human life during the past hundred years or so. If in the past anyone had made a survey of all human activities, he would certainly have treated his subject as a huge work upon Geography. He would have described human life country by country, and illustrated and

explained their differences and the differences of race and custom. But to-day that is not at all the best method. It is not the best method because of the increased and increasing ease with which communications can now be made between man and man, so that, while in the past men lived in a mosaic of little communities, each almost completely independent of the others, each with its own little but sufficient histories and its general ideas and its moralities, now we are in more and more effective relationship with all the other people in the world, and such mosaic pictures of thought and knowledge suffice no more.

Geography has become something different from what it was. Now we get news of those once inaccessible peoples hourly, and we trade with them, we cannot now dispense with that trade, we can serve and injure them to an extent that would have seemed fantastic in the days of King George the Third. Goldsmith once wrote of the remoteness of China and said that if a Chinaman was killed every time a gun was fired in France or England no one would hear of it nor care in the least if he did. Nowadays we should hear quite a lot about it. And as a consequence of this "abolition of distance" almost all our political and administrative boundaries, the "layout" of the human population, have become, we begin to realize, misfits. Our ways of doing business, dealing with property, employing other people, and working ourselves have undergone all sorts of deformation because of this "change of scale" in human affairs. They are being altered under our eyes, and it behoves us to the very best of our ability to understand the alterations in progress.

Suppose, to borrow an idea from Mr. Bernard Shaw, some young man er young woman, instead of being born in the usual fashion, were to be hatched out of an egg at the age of twenty, alertly intelligent but unformed and uninformed. He or she would blink at our busy world and demand, "What are they all up to? Why are some so active and some so inactive? Why are some toiling so industriously to produce things and some, it seems, doing nothing but consume? Why is this? What is going on?"

This book would be our answer.

§ 2. The New Education

The new revolution in human affairs, this modern "Change of Scale" has happened very swiftly, and it has crept upon us one day

after another so insensibly that it is only now we are beginning to realize the nature of the thing that has happened to us. The World War of 1914–18 was for great numbers of people the first revelation of how closely states and empires were being pressed together, and how impossible it was now to prevent the concussions of a conflict from affecting every state and person in the world. Indians starved in Labrador because the Paris fur trade was disorganized; they could sell nothing, so that they could not buy sufficient ammunition to kill their food.

It is only now after the World War that people have begun any serious and sustained attempts to grasp the new state of affairs and to break away from the old traditions that had, under modern conditions, brought them so close to disaster and which still keep them in manifest danger of perhaps even greater catastrophe. It has taken a dozen years for the full necessity for such a breakaway to be realized by any considerable number of people. But under the continuance of international stresses and social discomfort that number is growing. There is an increasing desire to part from the old limited interpretations that once were serviceable and that now guide us more and more unsatisfactorily, and to look at life plainly in the new, more formidable aspects it now presents.

First here and then there the idea was repeated that for a new time there was needed a new education. You could not run a world reborn, it was suggested, with the senescent ideas of a world that had passed away. This new education was to be not so much a resort to new methods as the continuation of the old methods with a new content. The educational progress of the pre-war period, so far as ways of teaching went, had been very considerable, and it might well be trusted to continue. But there was a growing dissatisfaction with what was taught, with the "educand," with the system of ideas about life in general, the ideology (to use the word as it is now used by thinkers of the Left) built up in our schools. That no longer corresponded with realities. Reform was attempted in the schools, but schools, it was soon realized, can be reformed only very slowly and only with the assent and stimulus of outside opinion. So that it was inevitable that at first this world-wide movement towards a new ideology, a new way, that is, of looking at ourselves and the world about us, should be most evident and

^{*} Maxwell Garnett: Education and Citizenship.

vigorous among those who had left school, among intelligent adolescents and adults, consciously anxious to adjust themselves to the alterations in the world about them.

The first distinctive movement for a new education took the form of the New History movement. History was the subject most obviously in need of revision. The New History was a revolt against local, national, and "period" history. It was an assertion that the history of mankind is a single whole and car only be comprehended as a whole, that we must have a just conception of human origins and the general development of human life before we can form any proper picture of the place of our own nation or city or village in the world, or make any proper plans for our political conduct.

It is for the specialist student to say how this New History movement originated and who were its pioneer exponents. Long ago Lord Acton was saying such things to historians as, for example: "It is our function to keep in view and to command the movement of ideas, which are not the effect but the cause of public events." That is precisely where we stand. The advocates of the New History tell the story of man as a whole, because they want to see political institutions advancing towards world unity, and because that advance is only possible upon a ground of minds prepared for it, expectant of it, and understanding its necessity.

But the conception of a new education has proved to be an expanding one. It involves, we discover, something more than the understanding of history as one process. History reaches back to pre-history, and that passes insensibly into palæontology. The new education also involves, therefore, the assimilation of certain broad biological ideas that have been making their way slowly but surely from the laboratory and specialized biological course, towards the general instruction of the young and the guidance of mankind. And biology also illuminates the nature and working of mind, out of which spring the guiding ideas of History. We live in a world very badly informed of the many pregnant things biology has made manifest. A second factor in the new education is Modern Biology.

The content of a third portion of the new education is still in a far less developed state than either its history or its biology. It is far less developed and far more urgently necessary amidst the perplexities, pressures and conflicts of our time. That is a general

conception of conomic life, of industrial processes, trade and finance. It is to assist in bringing out this most under-developed side of a modern ideology, that this present work is produced. It is intended to sketch out the missing third side, the economic side, of the ideological triangle.

We have remarked that this attempt to build up a modern ideology is going on at present chiefly in the minds of adolescents and adults outside the ordinary educational organizations. No doubt there are many teachers and schools already astir with the new ideas, but they are exceptional teachers and schools. The present state of affairs is a queer and paradoxical one. People leave school and then for the first time hear properly of the new history and of the leading ideas of modern biology which are essential to a modern ideology. They learn for the first time of socialism and of communism, of monetary and financial questions, of tariff issues, and of all the vast tangle of property and business. All this has been kept from them. They have had hardly an inkling of these things at school. And yet such things are the very substance of the lives these people must live. They do what they can to supply the deficiencies they discover in their school teaching and to correct its manifestly antiquated and reactionary influence upon them. Meanwhile the schools are taking the children of these people as they come along and very actively putting them back among the old ideas.

For example, while the adult world is learning painfully but steadily that aggressive nationalism is a disastrous obsession a vast majority of our children are still being made into just as ardent little patriots as we were made before the war. They are even drilled, put under military discipline, made to wave flags and sing militant songs, and are given history teaching of a combative romantic and narrowing type. This is no doubt a temporary state of allairs. As the modern ideology of the intelligent adult becomes more lucid, assured and complete, he will discriminate with increasing confidence and effect against the traditional teacher in favour of the enlightened one who certainly exists beside his reactionary confrère. One may easily become unjustly impatient with the schoolteacher. The schoolteacher cannot outrun public opinion. If he does so, he loses his job and there is an end to the matter. The first battles for the New Education of our new world must be fought in the adult mind.

§ 3. Apropos of Roger Bacon

This present revolt against established teaching and traditional ways of living and managing human affairs is not unprecedented. Again and again individuals or clear-minded groups have set themselves to change the ideology of the world about them. The first and perhaps the supremely important effort for a new view of life and a new way of thinking came in the great days of the Academy of Athens, and there was another struggle for a new method at the end of the scholastic controversies in the period of the Renascence and the New Learning, when experimental science dawned upon the world. A third phase was the organization of modern ideas by the French Encyclopédistes. Upon these major movements of the human mind, these real new phases of human thought, we shall have more to say in our second and fifteenth chapters. But there is one isolated figure in history which must always be very sympathetic to those who are working on the reconstruction of contemporary ideology, the figure of Roger Bacon in the thirteenth century. He, however, does not mark a turning point in human ideas. He failed. The turning was to come later. But he was a pioneer who foretold the modern world, and he gave very clear indications of how mankind could achieve most of the things that have since been achieved. He was the first of the moderns, seven centuries ahead of his time.

He met with great opposition. He spent his declining years in prison, deprived of writing material. To the end, in spite of his suppression, he remained an obedient son of the Church. His dominant idea was to liberalize the teaching of the Church, and he imagined a Pope leading Christendom to exploration and research, power and abundance. He foresaw the modern world in substance even if he saw it still papal in form, but he did not see the centuries of waste and bickering, the endless petty wars, the schisms in the Church and the intricate mischief of princes, the great pestilences, the social disorder, that intervened. He had not taken the measure of mankind.

He was by no means a screne and superior person. He scribbled, he scolded, he was tiresome and almost entirely futile. Everybody about him was too brisk, active, able, and preoccupied with im-

mediate things even to attend properly to a vision that to him was as plain as day. They found no sense in it. Two centuries of the liveliest history followed his death; it was the age of codpiece and crucifix, torture chambers and oubliettes, Plantagenet ambitions and the Wars of the Roses, peasant revolts and frequent famines, a romantic rather than a happy age, until at last successive epidemics of filth disease swept away half the population of Europe, and skulls became a leading theme in decorative art. When at the close of the sixteenth century Francis Bacon revived the vision of science, the Catholic Church was already entering upon its present defensive phase, and crabbed and scattered manuscripts that nearly everyone had forgotten were all that remained of the nopes of Roger Bacon.

His name remained indeed, but it remained as the name of a legendary magician.

Industrious biographers, loyal to their subject, have sought to trace a certain continuity between his ideas and those of Gilbert, the friend and instructor of Francis Bacon, and it has been shown that Columbus, unaware of his existence, quotes him at second hand as one of his inspirations. But if Roger Bacon started anything at all, he started very little. It is doubtful if Clement IV, who asked him to write, ever found time to read him. He had interested C'ement before the latter became Pope. Then came his one gleam of opportunity. Would he set out his ideas for his friend to consider? In great haste Bacon poured them out in an Opus Majus and sent that with an *Opus Minus*, already done, and some other works. Perhaps Clement never saw these manuscripts. Probably nobody ever read more than scraps of them until the tenacious modern student came hardened to the job. There is no hint in Bacon's story of ally, colleague, or disciple. No band gathered about him. He passed, and the stream of events closed over him.

Yet what he had to say seems to us now the plainest common sense in the world. He wanted the frowsty, pretentious Latin teachers of his time to burn their atrocious translations, abandon their narrow and tedious methods, learn Greek and try to understand what Aristotle really had to say, explore the scientific treasures available in Arabic, turn from books to observation, and make experiments to check their dogmas. Vision and power would reward them. Steamship, aeroplane, and automobile; he saw them all, and many other things.

He could not say it plainly and loudly enough. He had none of that quality which lays hold of wilful men and marshals them to co-operation. He saw opportunity passing, within arm's length, as it seemed, and he lacked the power or the subtlety—or was it the luck?—to rouse any living contemporary to the quality of that opportunity. Not for two more centuries was mankind even to finger the magic skirts of scientific knowledge—that most indifferent of benefactors, that most bountiful of givers.

It is perhaps because of his bickering uphill struggle, his desperate impatience, and his endearing weaknesses that Roger Bacon appeals now so strongly to those who are battling and toiling to-day in the same old struggle against the conservatism of educational institutions and the lag in progressive development that ensues. At first all educational reform is uphill. That is unavoidable. And all reformers are disposed to self-pity and moods of despair. They know no better. We still fight the enemies that he fought, but with a better hope. We still fight as he put it, "Undue Regard for Authority, Routine, Popular Prejudice and a False Conceit of our own Wisdom." A False Conceit, that is, when we should still be learning. The old tradition necessarily has all the prestige in such conflic's; it has the advantages of the defensive; it sits fortified in the high places and in the habitual assent of men. The reformers are often men no better than, or even of inferior quality to, the established men they attack. To be inspired by an intensive realization of a need does not make one the all-round superior of one's uninspired antagonist. And by the standards of the old education, anyhow, by the accepted standards, that is, it is inevitable that the reformers should appear to be defective, uneducated, minor and presumptuous men. Roger Bacon had the appearance and many of the defects of a presumptuous man. And no doubt to-day many of us who work for the new education have an air of presumptuous arrogance that is far from our real measure of ourselves. David and lack the Giant Killer must have been in a sense presumptuous men. Even Adam displayed a certain arrogance when he accepted the task of replenishing the earth and inaugurating a world new-made.

The analogy between Roger Bacon and those who are working to-day for a new education must not be carried too far. For Roger Bacon there was no supporter in the world except one short-lived

Pope. For the new educationist now an immense support is possible, for he can appeal over the heads of established authority to the Sane Man throughout the wide world. Roger Bacon was living in an age of authority, and we are living in a democratic age. • We who are concerned with the development of the new education have had to learn many things, and particularly we have had to realize that we possess this power of appeal from the scholastic authority to the general public. At first we were too much disposed to follow Roger Bacon and make a direct attack upon the school and university curricula. We were disposed to harass overworked and hampered teachers because they did not instantly turn their faces towards the new dawn. We waited upon education ministers and education departments and were officially rebufied. When we could see a thing so plainly, it was difficult for us to realize that it might not be at all apparent yet to these other busier and more closely occupied people. And because of the resistances we encountered some of us were inclined to find ourselves new Roger Bacons, crying prematurely and ineffectively of the possibilities of a better world against an obdurate obscurantism, and so lapse into a self-righteous indolence. We did not realize that now it is through adult education by means of the book that the final definitive revolution of the educational organization must be brought about.

§ 4. The Outline of History and the Science of Life

The writer's Outline of History affords an excellent instance of the way in which the intelligent adult reader can be brought in now to correct the bias of scholastic usage. Although it has had an immense popular sale, that book was not planned nor written for a popular sale. It was conceived as a school book.

It was the outcome of the writer's experiences in his war propaganda work and in the foundation of the British League of Nations Union. These experiences convinced him that the idea of the League of Nations might be anything or nothing, according to the historical prepossession of the particular person concerned, and that there could be no effective reorganization of human political affairs until the conception of human solidarity was far more firmly established in men's minds than it is at the present time. He came to apprehend the entire dependence of the political reactions of men

upon the picture of history that existed in their minds. He realized that these pictures varied extraordinarily from class to class and still more so from country to country. Nearly all history teaching hitherto had beer partial and partisan, and consequently men came to the peace discussions of the time with the best natural intentions and (all unawares of their state) with the most perverted ideas. For the new time there was needed a new teaching of history, the history of man's rise and achievement as one story; history could be treated no longer as a national rather than a universal subject, and it was necessary, if the efforts to reorganize the world at the end of the war were to have any permanent effect, that they should be erected on a common foundation of universal history.

In this belief the writer was not alone. Nor was he in any sense a pioneer. He takes his own experience because it is the handiest experience, because he knows it best, because indolence and egotism dispose him to do so. But in America, even before the war, under the influence of such writers as Breasted and Robinson the teaching of history as one whole was already under way. There has been now for some years an increasingly important New History movement in America. There was no particular originality therefore in the writer's insistence upon the urgent need of this important educational adjustment, and it was only after he had made various appeals to other historians and teachers that he set about writing the *Outline of History* as a proof that the subject could be brought within the compass of a college course, and as a demonstration of the method of treatment which would make it most valuable as an ideological basis for the new time.

No one could have been more astonished than he was at the great popular success of the *Outline*. He went to bed, so to speak, educational reformer and he woke up best seller. He discovered—and it was as great a discovery for his publishers as for himself—that there existed an immense reading public in the world which was profoundly dissatisfied with the history it had learnt at school, and which was eager for just what the *Outline* promised to be, a readable, explicit summary of the human adventure. The book sold and continues to sell enormously—on that promise. Not only does it sell, but several other excellent popular general histories, Van Loon's, for example, have appeared beside it. It has been translated into most civilized languages. Altogether, in all its

editions and translations it has found more than two million purchasers, and its sale is still going on. In 1930, for instance, a dollar reprint of an old edition ran to a sale of 450,000 copies in the United States. The writer has at least an average share of egotism and vanity, but nothing will convince him that this immense success is due to any extraordinary merit in the writing of the book. It is a book done in a humdrum fashion, which derives any largeness and splendour it has entirely from its subject. But it was for a while the only thing that even promised to satisfy the urgent need of intelligent people everywhere for a new and wider view of the human adventure, for a new and wider view made sufficiently clear and accessible for the time and attention they could afford to give it.

Now the discovery of the vast new public by the Oulline of History was a very astonishing and important thing for all of us who were feeling our way towards a new education and the establishment of a new ideology. Throughout the world there existed this immense multitude of alert and hungry minds, ready for and seeking a wider and more serviceable vision of the past that has made the present, than the schools had given them. Instead of boring away in an uphill struggle for the schools, we could appeal directly to this great adolescent and adult stratum of ordinary intelligent people, and afterwards, with that immense support, turn to the reformation of the schools.

A vision of history as one whole is, as we have already remarked, only one part of a modern system of ideas, and it was natural, therefore, after the encouragement of this first success, to think of supplying the two other main factors for a complete modern ideology. These two other factors, as we have already put it, are biology and economics. The *Outline of History* gives the story of man's origin, his races, his tribes, communities, cities, states and empires, his wars and migrations, the development of his arts and implements, and the series of events that have brought him to his present situation. But on the one hand some account of what is known of the nature and possibilities of life—what this thing Life is and how it works—and on the other, some explanation of the toil and motives that bind mankind together in an uneasy unity, are needed to round off the view of existence to which a modern man must adjust himself.

The success of the Outline of History had given the writer a

peculiar advantage for the launching of these two other needed Outlines, and so he set himself to the problem of their production. Circumstances had given him the opportunity to get this work done in a fashion, and once it has been done in any fashion, it is made easier for abler men with ampler organization and resources to do it over again more lucidly and thoroughly. The reader must not suppose that the producers of the pioneer modern ideology of which this is the third part, have any illusions about the quality and permanence of their work. The *Outline of History* must serve until a better outline replaces it, and so must the outline of Biology and the outline of Economics we are now introducing. As soon as they can be replaced by fuller and more lucid versions of what they have to tell, their usefulness will cease.

The first of these two to be made was the outline of Biology. For reasons we need not dwell upon here it was thought better to call this second work the Science of Life. The writer's early training had been biological, and he has always retained a lively interest in biological thought, but the mass of knowledge that has been accumulated since his student days rendered it necessary to call in competent assistance. He found it close at hand in the persons of his friend Professor Julian Huxley, grandson of his own biological teacher, and his own son, G. P. Wells. They produced a résumé of contemporary knowledge in this field, which gives the general reader the sum of what is known about his body and his mind, discusses the origin and evolution of life, surveys all the multifarious spectacle of living things on land and in the sea, brings together all the main trends of psychological thought and culminates in a special study of the very peculiar and exceptional biology of mankind. The publication of the Science of Life crowned the labours of two years and more of hard collaboration, and then it was possible to take up the last and most difficult enterprise of all, this outline of Economics, this popular account of the business and toil, the give and take of our strange and unprecedented species.

It has been so perplexing and heavy a task that it is necessary to make clear to the reader the broad facts about the difficulties encountered and give the reason for the form in which, after several false starts, abandonments, and renewed attacks, the work has now been cast. The reader has to be taken into the writer's confidence to that extent. Two convenient conventions, namely an imaginary

encyclopædia and a museum of reference, have been adopted, and without them it is difficult to say how this outline of human activities could be exhibited at all. Eehind the Science of Life there existed actual museums, textbooks, encyclopædias and the like, for the collaborators to summarize. Behind the present outline of economic science there exist indeed certain museums of which we shall tell more fully later, dealing very interestingly with one or other aspect of our many-sided subject, and a vast undigested mass of fact and material, not yet gathered into any ordered arrangement available for summarization. These things are coming into existence, but they are not yet fully here, and so we have had, as it were, to anticipate them and manage as well as possible as if they were already in being.

§ 5. The Urgent Need for Sound Common Ideas about Work and Wealth

Of these three systems of knowledge and realization which must make up a modern ideology, the third in order as we have taken them, is not only the most elusive and difficult to assemble, but the most urgently necessary at the present time. Since the Great War the economic stresses of the world have become more and more painful and distressing. By comparison preceding ages are beginning to assume an air of the most idyllic tranquillity. We are coming to believe that before our time the ordinary human life passed in a peaceful, unchanging security from the cradle to the grave. It might be limited, it might be oppressed, but it was sure. The peasant child learnt to scare crows and plough and so forth, and grew up and ploughed and ploughed his patch to the end of his days. The townsman had his trade or his little shop, and it kept him, and he left it in due course to his son. The lawyer, the doctor went about his business; the woman of the gentler sort was loved and married and lived happily ever afterwards in a round of household duties. The seasons brought the harvest and the hunting, Yuletide, May Day, and the happy summer weather.

In truth things were never like that, but multitudes of people thought they were. The wheel of life seemed to them to be turning in orderly fashion from age to age, they did as their fathers had done before them, life was an even flow of small but sufficient

events. Over the hills and far away was adventure, perhaps, but it did not threaten them. Young men went off and returned no longer young, with parrots and lacquer boxes and suchlike objects to witness to other worlds of taste and work, unlike but as stable, it seemed, as our own.

And that life was understandable. The way in which its few and simple parts joined together was plain. It was at hand. One saw every stage from the sowing of the seed to the baking of the bread, from the gathering of the wool to the making of the garment. One saw master and man, and if there arose any doubts about the explanation of the world, the priest at the altar had a wonderful way of dispelling them.

But now we all begin to realize we are living in the break-up of whatever system existed before our time, and that in a great disorder a new system may be coming into being. All sorts of forces are at work disorganizing us now but with a tantalizing air of producing some larger strange organization to which we must adapt our lives. We work, and the things we make are taken away and we see no more of them. Our streets are full of strangers who pass and give way to other strangers. Great factories arise in our familiar land-scape, and we do not understand why they have arisen or what they produce. We buy and consume exotic foods. We are employed, we are thrown out of employment, things become dear, or cheap, or inaccessible and we cannot trace the causes of these fluctuations.

It seems all beyond our control. We cannot find out who controls it. Is anyone controlling it? The newspapers tell us this or that about it. They are disturbing and alarming. Vast multitudes, we learn, millions are being thrust out of employment. There is pleuty, locked up. There are dire want and misery. Then we find ourselves called upon to decide between politicians who demand that this shall be done and politicians who demand that that shall be done. It appears that we in our muddled multitudinousness are being called upon to make decisions. This immense tangled affair, we gather, is our affair. In various rather obscure ways we have been made responsible for it. We have to vote.

But how can we vote when we do not get the hang of it? Has anyone got the hang of it? Are there any people anywhere in our world to-day who have a really comprehensive vision of the economic world process as one whole? Apparently not. And yet we

ordinary people have it thrust upon us, that whatever control can be exercised over this immense complex tumult of world change, must be exercised through our voting and our assent.

When the present author wrote his Outline of History he was writing down and doing as exactly as he could for other people what in any case he had to do for himself, to get all the phases of history into one story and in their proper relation to one another, so that he could understand the international problems that unfolded after the war. And now again in this work he is making a practically parallel effort. He is doing it not only for the sake of the reader, but for his own sake. He is trying to assemble and select out of the infinitude of facts in the world about him the cardinal and significant facts that will make the whole mass of working, producing and consuming, one understandable spectacle. He is attempting a book, a survey of the world, a scheme and map of doing, which will enable him to say to anyone whatever: "This is the whole world of work and wealth, of making and getting and spending, and here at this point is your place, and this is where you come in. The map is not a very large-scale map, and consequently you and your sphere of activity may not loom very large, but here and not elsewhere is where you are. And so far as can be ascertained the reason why you are at this point and why you do this or that and want to do so and so is as follows. . . . And further there are reasons here given why you should act in a certain fashion and what certain things are justifiable for you and what certain others are not. This world of making and fetching and carrying and buying and selling to which you give the greater part of your waking life is ruled by certain laws, obsessed by certain defects (which perhaps you may help to cure) and threatened by certain dangers you may help to avert. In fact, 1 am attempting to make for myself and you a complete chart of economic life, not simply to help you to steer yourself through the confusion, but also to supply a common ground upon which we two can co-operate in this great experiment of life; this adventure of mankind.

"Just so far as this attempt is successful, then so far, instead of our present feeling of helplessness against the waves of want and loss and of elation and prosperity that sweep over our lives and the lives of those about us, we may presently find ourselves with ideas in common, with convictions in common, and with a workable plan

of campaign for the stabilization and betterment of this strange eventful world."

§ 6. Some Difficulties and Problems in the Writing of This Book. Museums of Industrial Progress. The Device of an Imaginary Encyclopædia

And now let us give the reader some account of the very great difficulties that have been discovered and circumvented in getting this work into shape.

The Outline of History was written by a single author who took his work to specialists for verification or correction; it was largely a summary of predigested material. But the Science of Life was done in a different fashion; there was an immense body of very technical science in existence, and the work was best done in collaboration with two able experts. The writer's first conception of this third book was as a collaboration also. He thought he would call it the Conquest of Power. It seemed to him that it would be possible to treat all the spectacle of to-day as being in its essence, mankind escaping from toil through the development of power machinery. The vork was to tell of the development of invention and science. and then it was to trace the transformation of everyday life, the spreading change in the forms and fashions and methods of everyday life, through this change in the economic basis. Two wellinformed collaborators were to gather the bulk of the material and assist in the synthesis.

It seemed laborious but possible in these terms. It was only after the project was launched and the first instalment of "material" came to hand that the profound difference in conditions of this enterprise from its predecessor became apparent. It was only then that the author realized how purely customary our productive, manufacturing, credit, monetary and trading systems are. The mass of fact to be dealt with was not only far larger, but it had undergone nothing like the same sifting, scrutiny and classification as the biological material. It had hardly been approached scientifically. We know far more exactly about foraminifera and tadpoles than we do about many business operations, and we are far more in agreement how that sub-human life is to be thought about and told about. The author found himself urging his collaborators towards a

dark jungle of fact in which there were no textbooks and only very incidental and limited museums. That sort of clearing, exploratory, synthetic effort was demanded, in which collaborators, advancing in triumvirate formation, might easily become an intolerable drag on the work. It would be all too easy to collect enough material to overwhelm us while leaving the larger part of the jungle unexplored. And nothing annoys a collaborator who aspires to be a colleague more than to tell him to scrap his material and either begin again or resign. Yet there was no way to avoid such masterful repression. Experiments in statement would have to be made, chapters written and torn up, methods of treatment tried out and abandoned, before the right way of doing it was discovered.

As it was surveyed in this collaboration stage the *Conquest of Power* presented itself as a continually swelling mass of fact. The job was to digest it. Because of the ease of aggregation compared with the difficulties of synthesis, any group of collaborators would be committed slowly but surely to the writing of an encyclopædia. That would take years of toil and might never reach completion.

Presently, as it became more and more plain to me that the development of the world's current economic life has much more in it than merely the introduction and consequences of power machinery, the projected title of the enterprise was altered to the Science of Work and Wealth. An ever-growing series of industrial developments was sketched out. We should have, we thought, to tell the history of steam from Hero's engine to the latest turbine. We should have to trace the development of the metallurgy of every sort of metal. We should have to tell the full story of electrical development. There would have to be lengthy explicit accounts of the utilization of coal, plans, diagrams, photographs of oldfashioned and modern gas works, a pursuit of coai-tar products to their ultimate ramifications, a history of wild and of cultivated rubber, and—in the fullest sense of the phrase—so on and so on. Interminably. When that much was done we should have got at least a technical encyclopædia. We should have accomplished in a book what the Science Museum at South Kensington and-more explicitly and fully-its daughter the Deutsches Museum at Munich—set out to do. And it is a journey of nine miles to walk once round the galleries of the Deutsches Museum! Our enterprise was already becoming colossal and interminable.

But all that would only be the first portion of the design of the Science of Work and Wealth as it was opening out. For this account of materials, mines, foundries, factories, engines, machines, was only the framework of what we had to do. So far as that part went we might have sat down in the Deutsches Museum with notebooker and cameras to turn it into a book. But there would still remain great fields of activity untouched, for which we should have to go elsewhere. The technical museum could, for example, take us as far as the "textile fabric," but to trace the textile fabric to the stylish dress via the costume designer, the milliner and the shop, opened a new and practically unexplored field. The immense activities of distribution, selling, advertisement, the fluctuations of fashion, all fell within the boundaries of our project, but for these as yet no Deutsches Museum exists. That department of anthropology has still to assemble such partial collections as have been made so far. And when it came to catering, to modern food distribution, to the new ideas that are being embodied in contemporary housing, to the hotel industry, to tourism, the material was still more hopelessly scattered, and, in any completeness, unobtainable. And still other vast areas of interest stretched beyond, the pay envelope and the counting house, the farmer's loan and the bank, the financier and the douane. At the douane were national flags and soldiers in uniform. . . . And after all that came the enquiry why all this vast multitude did what they did.

In the face of this unordered multitudinousness the projected collaboration had definitely to be broken up. Some other way had to be found to synthesize this complex spectacle. It was by no means easy to find that other way. I will not weary the reader with the details of this search, the hesitations, the ponderings and goings to and fro. The problem was to reduce this colossal project to manageable dimensions. It had grown until it had become the scheme for an encyclopædia, a whole technical literature, and there still remained vast hinterlands to explore. It had outgrown itself beyond realization. Yet nevertheless, I perceived, it retained a shape. It had not become a mere chaos of material.

Might it not be possible therefore to give merely the gist of it, the idea of it? For example, a scheme for it might be prepared, a rather detailed synopsis. This could be printed and circulated—more or less restrictedly. It would at least give the framework of essential

ideas soundly and clearly. Then perhaps it would be possible to reorganize the task on the lines of a multiple collaboration. My mind still harped for a time on comprehensiveness, organization, a concentrated encyclopædism. I would not indeed produce the Science of Work and Wealth itself, but an infant, prepared, if the gods willed it, to grow up into the Science of Work and Wealth. It could be issued as, let us say, "Work and Wealth—A Project for a Review of the World's Economic Life."

That I may call the first phase of the reorientation of the project. Perhaps such a synopsis, I thought, would be as much as I could actually do towards the enterprise. It would be a sort of interim report upon a work in hand done in such a way that presently other hands might take it over. It would be the pencil outline for a fresco which would have all the colour, substance, and detail the sketch could merely indicate. It would be possible to broach all the leading ideas and anticipate the main discussions of that contemplated work—that was the main point. It was to be a forecast—but a substantial forecast, much more than a mere agenda—of the whole thing. . . .

On that I went to work, but as the work got done, I saw more and more clearly that I was not writing a synopsis but a book. I was doing what I had been wanting to do, in a fresh, compacter and altogether more convenient fashion. What I was writing was not indeed that encyclopædic, all too vast and detailed Science of Work and Wealth that I had found at first so alluring and then so oppressive. But it was its essential form and ideas made all the clearer because they were not embedded in hundreds of illustrations and collaborators' detail. I changed the title. I gave it another title, the title of The How and the Why of Work and Wealth, to make it plain to myself that I was doing something starker and less massive than the original project. We were to deal with industry but not technology, with finance but not accounts and statistics. Motives and direction were to be the primary substance; detail was to be secondary and by way of illustration. That title was good in so far as it kept the bare aim in view, but gradually, as the work approaches completion, as it has broadened and opened out and its spectacular quality becomes plainer, this title also was felt insufficient, and it has been rechristened finally, The Work, Wealth and Happiness of Mankind.

The discovery of that final title was extremely difficult. It had to be descriptive, expressive, and attractive. It had to tell the reader what he was getting. It had not to promise too much or to territy unduly. It had to present a candid attractive brow to the world, broad rather than high. Various suggestions were tried over. The footnote below is a sort of vault in which some of the condemned lie in state.* They all help to show the objective of this work. It is now neither a synopsis nor the complete encyclopædia once contemplated, but a real summary, and I hope a serviceable summary, a world display, of the present mental and material poise of our species. It can be read right through. But that projected encyclopædia would never have been read through, because it is only the broad issues that interest us all in these questions, and the technical details of engines, researches, industrial processes, mining, agriculture and so forth, except in so far as they illustrate general principles are speedily tiresome to those not immediately concerned with them. We all find a certain pleasure in watching work in process but nearly all of us are bored if it is explained to us too fully.

That need for the limitation of detail was brought home to me very vividly by a shrewd friend I had taken to the South Kensington Science Museum. We spent an hour or so over the development of the steam engine; we went on to the story of the ship. Then we went up to the evolution of optical science. My friend began to show signs of brain fag. We went to that central place on the top floor which gives a glimpse of all the floors and galleries. "This is fascinating," said my friend, "but it isn't like reading a history or a novel. It doesn't take you on from a beginning to an end. It's a multitude of strands woven together. Each one is different, but they all go the same way. I would like you to tell me now what it is all about; to take me to this exhibit or that to illustrate this point or that, but I have no use for it all. I like to know it is here. I like to know what the main divisions are. But nobody sane would want to explore all these galleries, just as nobody sane would dream of reading through an encyclopædia from beginning to end. This stuff

^{*} A Survey of Civilization, What Mankind is Doing, The Human Complex, The Fabric of Society, The Fabric of Human Society, The Panorama of Mankind, The World of Work and Wealth, The World at Work, The Work and Play of Mankind. Work, Wealth and Play, The Activities of Mankind, The Human Ant-Hill, Homo Sapiens, Man in His World, Homo Contra Mundum, How Man Exists, Man Conquering and to Conquer.

is for reference. You tell me what it is all about-if you can."

I felt the wisdom of these remarks still more profoundly at Munich as I made my nine-mile pilgrimage through the Deutsches Museum. I would spend a profitable hour or so upon a hundred feet of exhibit and then walk on, taking the bright objects about me for granted and blessing the wisdom and industry that have assembled them. These things have to be done and made accessible, but it is no part of the new education to inflict them in mass upon everyone. What the new education has to give to everyone is a conception of the broad stream of mental growth and purpose upon which all these things are carried along. Then let everyone specialize in the section that attracts him most.

This remains an experimental book. It has all and more than the faults of the Outline of History because it is less of a compilation. It is slighter and even more provisional. It has little of the scientific assurances of the Science of Life. But its claims are enormous; let there be no mistake about that. It represents all current human activities and motives—all and nothing less. It is a first comprehensive summary of the whole of mankind working or playing or unemployed; it seeks to show the jockey on the race-course in relation to the miner in the pit, the baby in the cradle, the savage in the jungle, the city clerk, the fish-wife, the lord-in-waiting, the Speaker on the Woolsack, the Soviet envoy, the professional cricketer, the shopwalker, the streetwalker, the dealer in secondhand microscopes, the policeman, the newsvendor, the motorcar "bandit," the political gangster and the university professor. It will have failed of its object so far as any particular reader goes if that reader does not find his own niche clearly indicated in this descriptive fabric. He must be able to say, "Here I am, and this is how I stand to the rest." Or at the worst he must be able to say, "Here in this lot I should find myself, if the scale were bigger." It has to establish the reader's economic citizenship, place his economic rights and duties. It has, among other things, to supersede the vague generalizations on which Marxism rests and concentrate and synthesize all those confused socialist and individualist theorizings of the nineteenth century which still remain as the unstable basis of our economic experiments. It has to be that much sound and thorough, or it would not have been worth doing.

In other words, this is a sincere and strenuous attempt to make

economic and social science come alive and be personal. It is a book within the compass of my writing and your reading, but behind it still looms the original, the vaster conception of a huge modern encyclorædia of human skill, knowledge and relationship, the whole Science of Work and Wealth. That phrase I use repeatedly in what follows—to suggest a conspectus of modernized economics, the entire literature of the subject and all such studies now in progress. And radiating from our work stretch out the galleries of the South Kensington Museum and the Deutsches Museum, and beyond these, other museums and the anticipatory phantoms of galleries that do not yet exist, a museum that Henry Ford is trying to assemble under von Miller's inspiration, and other museums that as yet no one is trying to assemble; museums of advertisement, of selling and the like, museums of educational methods and apparatus. At one point I raid towards art museums, music libraries and libraries of gramophone records. For all human achievement falls into our prospectus. . . . The reader, after this explanation, will not, I hope, resent my frequent allusions to these collections assembled or still to be assembled. It is a device of very great convenience. It makes a picture that could be made in no other way.

The abandonment of the idea of a triumvirate of collaborators for this work has left the writer wholly responsible for its tone, content and general arrangement, but it has not meant an abandonment of assistance. In fact, it has rather released him to get special help from a great number of people, instead of restricting his channels of supply to two helpers. The first start had already produced a sketchy framework of the undertaking and a certain amount of more or less useful material had been assembled. Moreover, one of the original triumvirate, Mr. Edward Cressy, the well-known writer and popularizer of industrial technology, although he had felt unequal to the labour of collaboration throughout, retained a keen interest in the enterprise; his experienced hand is evident in the earlier chapters, and his advice has been helpful at a number of points. Mrs. G. R. Blanco White, who was originally consulted about certain passages connected with money and banking, upon which subjects she had written various articles and memoranda. took up the matter with so lively and understanding a response, . that finally the whole plan was put in her hands and discussed with her, and she became a real collaborator upon the entire work. The

special chapter on Women, though it does not by any means present her particular views, was inserted at her suggestion and has been closely argued with her; a considerable part of the material on actual labour conditions comes from her; she assembled the Congo and Putumayo histories; she collected the substance of the summaries of wealth-getting careers, the diagnosis of the current world slump is mainly hers and she has read and prepared proofs for press. Another friend who has contributed material to this book, subject of course to the freest editorial handling, is Mr. J. F. Horrabin, M.P., my collaborator-illustrator in the Outline of History, to whom I am indebted for particulars of legislative work as it is done in the House of Commons. It is very pleasant to have his hand in the third as well as the first part of this trilogy. To Madame Odette Keun, the novelist and descriptive writer, I am also greatly indebted. She has assembled material for me, contributed to the discussion of colonial conditions, read and re-read the entire typescript and all the proofs, and throughout she has insisted on the utmost clearness and explicitness in everything she read. Where so much matter has to be condensed there are great possibilities of fogging, and her sharp, critical mind has been of the utmost value. I do not know whether thanks are most due to her from the reader or from myself.

Outside this inner circle of people who have had, so to speak, a finger—or several fingers—in making the original manuscript, I have to thank a number of others who have, in the measure of the demands made upon them, helped me or my collaborators very generously and freely. I went to Munich to see what the Deutsches Museum could do for me, and I had some very stimulating talk with Dr. Oskar von Miller, the virtual creator of that wonderful display, and afterwards I visited Sir Henry Lyons at the South Kensington Museum and followed out the broad lines of his scheme of development. The important share these great collections have had in suggesting my method of dealing with otherwise unmanageable masses of detail, has already been explained in this Introduction, and it will be obvious throughout the entire work.

I have to thank Dr. C. S. Myers, who allowed me to see the working and intentions of his National Institute of Industrial Psychology and who put me on to the admirable Home Office Museum in Horseferry Road. I am also very grateful to Mr. E. W.

Murray, who showed me over that museum and made its meaning plain to me.

Some years ago Professor Carr-Saunders visited me and discussed this project at its very beginning and subsequently I had a very profitable talk about the general scheme with Professor Henry Clay His Economics for the General Reader has been a steadying handbook in the writing of several chapters. Professor Carr-Saunders has since read the proofs of the entire work for me. His care, criticism and knowledge have been of great value. But he is not to be held responsible for the opinions expressed or the tendencies displayed. I am the only whipping-boy for this work.

Another adviser has been Mr. Graham Wallas. Years ago among the Swiss mountains we discussed Ostrogorski's fruitful studies of modern democracy, then newly-published, and it has been very pleasant to link up this present work with those earlier trains of interest. Outside an all too limited circle of special workers on both sides of the Atlantic, few people realize how much contemporary thought about political and administrative matters owes to the obstinately critical and enterprising mind of Graham Wallas. To Dr. Finer of the London School of Economics my thanks are also due for helpful counsel. Dr. Finer has taken the civil services of the world as his particular field of study, and I am very fortunate to have had his aid. Mr. Eric Simons of Edgar Allen & Co. has "vetted" Mr. Cressy and myself so far as the account of the steels goes in Chapter II, and Sir Frederick Keeble and Mr. A. P. Allan have played the same generous rôle for Chapter III. Mr. R. A. Duncan has read Chapter V to its great benefit, and so has Mr. Clough Williams Ellis. My son Frank Wells has also made some useful suggestions upon this architectural section. Lord D'Abernon, Mr. Maynard Keynes and Mr. Thomas Lamont have read the typescript of Chapter IX and discussed it with me. Mr. Lamont does not in any way endorse that chapter, which he regards as Utopian, but he has made some very friendly and helpful comments on its statements. My friend Mr. Leif Jones, an "old parliamentary hand," read and discussed the account of Parliament with me. Lord Olivier read over the population and race chapter (XIII) and advised upon it, giving me in particular a very useful note on the state of affairs in Jamaica, and Lady Rhonuda has read the chapter on Women and commented thereon. My daughter-in-law Mrs. G. P. Wells has

looked up and checked much indispensable material and helped ably with the proof-reading. And my friends Professor Harold Laski and Mr. Kingsley Martin have read the entire proofs from beginning to end, to my marked profit.

► Mrs. Blanco White has received very useful help from Mr. Robert R. Hyde (of the Industrial Welfare Society), Mr. R. G. Hawtrey of the Treasury, Mr. John Hilton of the Ministry of Labour and Mr. J. F. Darling, Mr. W. Crick and Mr. Parfett of the Midland Bank. Mr. R. G. Hawtrey has read through and discussed the typescript of Chapter IX and saved me from several errors of fact and presentation. Mrs. Blanco White consulted Mr. H. W. Nevinson and Mr. J. H. Harris of the Aborigines' Protection Society for material about Putumayo. Among others to whom I am indebted for ideas, material, answers to questions and permission to quote, are Sir Robert Hadfield, Sir Josiah Stamp, Professor T. E. Gregory, Sir R. A. Gregory, Mr. Percy Redfern, Professor Miles Walker, Mr. Cloudesley Brereton, Mr. W. Clarke Hall, Professor Soddy, Mr. E. M. H. Lloyd, M. André Gide, Mr. Raymond Fosdyck, Professor Malinowsky, Sir Basil Thomson and Mrs. W. H. Thompson (Joan Beauchamp). My debt to the new Encyclopædia Britannica is manifest and is acknowledged at a score of points. But it is almost impossible to recall and name all the friendly and interested people on whom I have upon occasion inflicted lengthy descriptions of this project during the various stages of its growth, and who have given me hints, criticism, counsel and ideas. M. Henri Barbusse, Mr. Maurice Hindus and Mr. Michael Farbman, for example, have brought me their personal impressions of Russia. I have found the excellent talk and published views of Mr. Edward A. Filene particularly illuminating upon modern distribution and the relations of the manufacturer to the retailer, and I cannot say how much I owe, in the correction and steadying of my ideas, to the conversation of my friend Sir Arthur Salter.

In a number of footnotes the reader will find the names of numerous books that have served me. For a couple of years I have read very little that had not some bearing upon this task and I have met no one with something to tell, whom I did not try to turn to account for this work. But in view of the breadth of the field to be covered, it is impossible not to realize that there must be many good books I have missed and many authorities I might have

consulted with advantage and did not do so. These authors and writers must forgive my ignorance and not suppose themselves wilfully ignored. This outline vas altogether too vast to do exhaustive'y at the first onset. The alternative to doing it as it has been done was not to do it at all. And it had to be done.

It remains a sketch, an adventure. It is, I recognize, the least finished work of a trilogy, because it is the most novel. In the long run a better work of the same substance must replace it. Or it may share one destiny with its two companions and be fused with them for a common purpose. A further fusion, concentration, stripping down and simplification may be ultimately attempted. At present the Science of Life overlaps the opening chapters of the Outline of History; our first chapter of this present work does the same, and the concluding sections of the Outline of History merge insensibly into the economic and political problems we deal with here. They are all contributory sketches to that complete but clear and concentrated Account of Life, which it behoves us to give to our children, that summary of fundamentals on which the collective energies of a new generation must be based.

Mankind is living too ignorantly and casually, and such education as exists is limited, incoherent and confused in its statement of reality. That is the chief cause of unhappiness in the world to-day, and that is the evil against which the triple effort of these books is directed.