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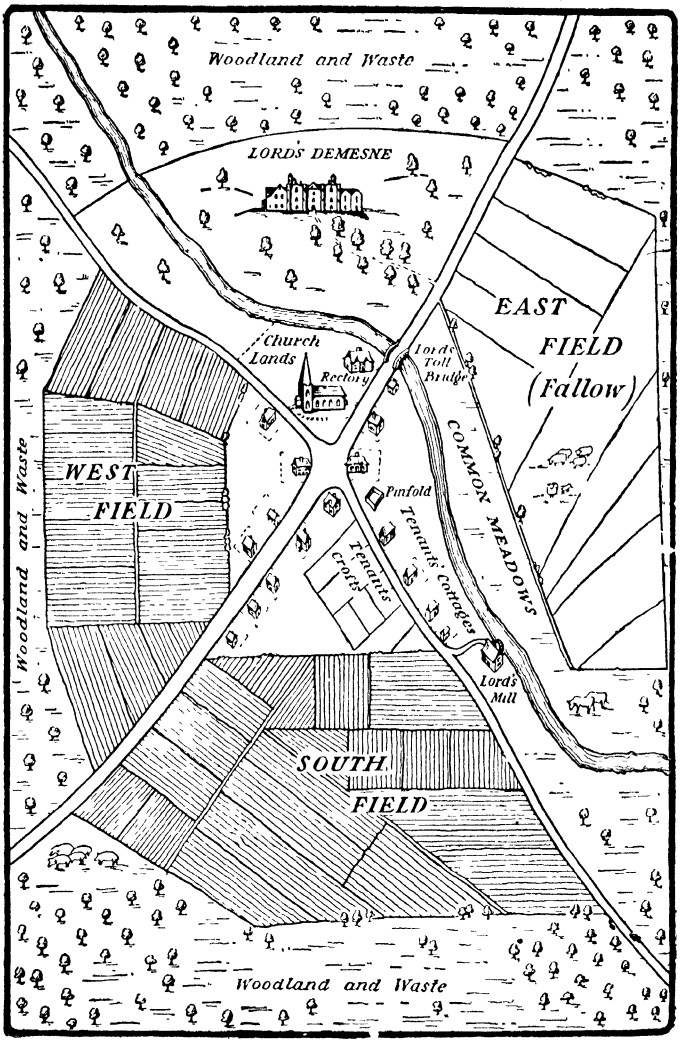

PLAN OF A TYPICAL MEDIEVAL MANOR

Illustrates the three-field system

ECONOMIC HISTORY OF ENGLAND

BY

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PREFACE TO THE THIRD EDITION

THE many changes and developments taking place in recent years have rendered necessary a revised and considerably enlarged edition of the well-known *Economic History of England*, by Milton Briggs, M.A.

In carrying out the task of revision and re-arrangement into two Parts, the needs of students reading for the Intermediate examinations of London University have been primarily considered, but some sections of the book should be of value to candidates taking their Final examinations, while the whole work will, it is hoped, be of considerable interest and service to the general reader.

From the point of view of public examinations, the most important sections of Part I. fall within the scope of Chapters IV. and V. Some knowledge of the mercantilism of the Tudor and Stuart periods is required by London University, and these topics were treated inadequately in the previous editions. Chapters IV. and V. follow the periodic arrangement instead of the subject method plan. This is not without drawbacks from the point of view of clarity of presentation of the matter; on the other hand, the change in method has allowed a variety of topics on which questions may be set to be discussed in a strictly limited space.

Part II. of the New Edition covers the period from 1760 down to 1932. The general framework of the original book has been preserved, and as much of the matter as

possible has been retained, but very substantial changes and additions have been made.

In the first place, the Industrial Revolution has been discussed in very much greater detail. Three new chapters have been inserted dealing as fully as is possible in a work of limited size with the general character of the Revolution and the reorganisation of the coal, iron, and textile industries. Important additions have been made on Banking, Communications and the Agricultural Revolution, and a brief history of the income tax since its introduction by Pitt has been interpolated in the chapter on Free Trade.

The New Edition differs from the original in spirit. It is less individualistic in tone, and its attitude towards many problems, Speenhamland and the Amendment of the Poor Law in 1834 for example, has been modified by the influence of recent thought.

An attempt has been made to interpret the main phases of the economic history of the period in the light of contemporary political and social ideas. This, it is hoped, will prove of real service to students reading the subject without previous training in social philosophy. It should assist the understanding of the forces in the background of historical events.

A word of caution, however, is necessary. The theory scattered through the pages of this work must be interpreted with moderation. That the atmospheres created by the individualistic philosophy of the early nineteenth century, and its antithesis after 1870, exercised indirectly, a profound influence both on social legislation, and the attitude of the State towards the labouring classes cannot

be denied, but it is an exaggeration to impute, as is sometimes done, all the evils of the Industrial Revolution to one set of ideas, and the amelioration of the hardships of the working classes towards the end of the century, solely to another.

When stressed too far, the theory leads to inaccurate judgments on the great thinkers of the early nineteenth century. There is no reason to suppose that Ricardo and his circle has less sympathy for social distress than the philosophers of a succeeding generation; indeed, Bentham's greatest happiness principle formed a foundation for later builders who rejected the consequences of his individualism. The dictum of the great French publicist, Montesquieu, that property is merely a civil convention sanctioned by the State had consequences from which he would very probably have recoiled, and the same holds good with respect ,to the individualists of the early nineteenth century. It was the atmosphere created by their theories on the nature of society and human relations that exerted so baneful an influence on the early stages of the Industrial Revolution.

In a work of this kind which follows the subject method arrangement for obvious reasons, it is impossible to avoid a certain amount of overlapping. Some portions of the matter are common to several subjects; hence, in order to ensure that each chapter shall form a complete unit, as far as is possible, some repetition has been purposely made, particularly with reference to the influence of philosophical ideas.

As far as was practicable, all the sections relating to the early periods have been transferred to Part I., but an

exception has been made in the case of the short chapter on the development of London, which to some extent provides a rough summary of the main lines of town growth in the country as a whole.

The work lays no claim to originality so far as the subject-matter is concerned. Sources of information and references to authorities have not been indicated in the text in order to avoid overloading the pages with footnotes. Acknowledgment, however, is necessary here of the debt this Edition owes to the works of Lipson, Clapham, Knowles and Fay, among the standard treatises on this subject.

NOTE TO THE FOURTH EDITION

In preparing the book for this edition, the opportunity has been taken to rewrite and extend Chapter XVI. —The Economic History of the War, and the Post-War years.

The subject-matter has been re-arranged, and the sections have been extended down to the end of 1938.

More space has been given to the changing character of British industry—the decline of competition, and the growth of regulation; and new sections have been added on topics such as the post-war difficulties of the coal and cotton trades, the Ottawa Agreements, and the Agricultural Marketing Boards, etc.

It is hoped that these improvements will increase the value of the book for examination purposes.

P. JORDAN.

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ECONOMIC HISTORY

PART I.—EARLY TIMES TO 1760

INTRODUCTION

1. English Society

The common opinion that England is a rich country is based on fact, and yet extremes of wealth and poverty exist. The nation is divided into classes, largely according to property or income. Other classes exist, among those similarly situated as regards means, differing from each other in habits, ideas, and temper. The middle-class farmer is unlike the shopkeeper, the small manufacturer, or the professional man, but resembles the agriculturist of other civilised countries.

If men's lives were governed only by reason, we should expect a definite type of man (the best) to grow up in each country, but a blind obedience to habit on the one hand and to impulse on the other is generally the deciding factor. Hence a person in one class, following the customs of his father, retains the practices of those connected with him.

To understand present conditions, then, we must look backwards. These conditions may be traced sometimes to some immediate cause, oftener to tendencies which have been working through the ages. The British Empire is a strange combination, and yet it has weathered severe storms. Our clumsy, unsymmetrical British Constitution, a product of trimming and compromise, works well in practice. No logical statesman could have invented these as they are, and yet they persist because they have grown naturally into their present condition.

Nature tends to irregularity and lack of symmetry; human institutions follow the same path. A tree develops, and has a definite character at a particular time; a child grows, but lives his own life though he may not be fully developed. So a people at any period thinks of itself as in some way different from what it was; it considers that it has invented the virtues. Yet at a future time the nation will look back on all its shortcomings with pity and contempt; more of the old abuses will then have been toned down and better qualities developed. This means that though a people may consider that it has reached a final and perfect form, yet it is simply passing through a phase.

2. Continuity of Progress

In a progressive country large, sudden changes leave their mark, but the effect is often neither deep-seated nor lasting. The apparent change will be great, but unless the cause is repeated the effect may soon disappear. The qualities of a people which are most characteristic and persistent have been developed slowly, by the accumulation of many impressions working in the same direction. Hence for these qualities we must consider the earliest periods of our history that we are able to examine. To explain the fruit on a tree, we need practically consider only the present season; to understand the tree itself, we must follow back its history to the seed, and then indefinitely further again.

Every past age was once a present; so the forces working in our time will leave their mark on the future. Growth is continuous, and the present age is not in an exceptional position. If we have explained all present phenomena absolutely, we may predict the future: for forces which worked in the past have not come to a sudden stop, but are still in existence. If there has been a definite movement in a certain direction we may expect it to continue, in the absence of counteracting causes.

3. Use of History

The study of the state of the people in past times is then no academic plaything; it is a necessity to those who wish to understand present conditions. Seemingly blind and ignorant customs, absurd to external observers, may be part of the very life of the people, and only a study of past history will show which of such customs have a real meaning. Half the mistakes made by victorious nations have arisen from a lack of sympathy of this kind.

History, then, explains to some extent the causes of present phenomena. Thus it naturally suggests improvement of present conditions, and its study is therefore necessary for the reformer. When a change is intended, past experience may be invoked and, still more important, a thorough knowledge of the conditions will suggest the most appropriate remedy. Lastly, the study of the past is useful as a means of forecasting future events, not to gratify curiosity, but to provide material as a basis for the action which must be taken to accelerate beneficial changes and to hinder or retard those tendencies which seem a source of danger.

4. Economic History

A knowledge of the whole of past history is impossible, and much of what is known is of little use for the purpose of understanding present conditions. A selection must be made, and the field must be limited. The object of most social reformers is to increase the amount and to better the distribution of wealth, *i.e.* to improve the economic condition of the people. Hence the study which investigates the welfare of the people in past ages is a necessity; it is called Economic History.

It is true history; but facts dealing with government in all its bearings are as a rule secondary. Here and there a king, law, or institution may have made a large impression on economic life and the fact will be noted; but Political

History will be slightly treated, not because it is unimportant, but because it is of little use for the purpose in hand. Economic History, then, is a part, independently developed, of the whole body of History.

It must be distinguished from Economics. The latter is a theoretical study, showing how wealth may be best obtained, and how it has originated in the past; it deals, or should deal, with general principles. In so far as it is concerned with actual facts (in past times), it is either being aided by Economic History or trespassing on its preserves. The latter is again somewhat wider than the theoretical study. Economics deals with relatively few subjects, and attempts a thorough explanation; but Economic History corresponds more with the German conception of Economics and deals in more or less degree with most of the subjects which affect human life.

As Economic History helps the study of Economics, so the debt may be repaid. In Economics the historian finds conclusions which may or may not be exactly true, but which are probably nearer the mark than those which the historian can reach unaided. These he uses to systematise his work. The facts of History are so numerous that it would be impossible either to know or make use of them were some method of arrangement not employed. As it is, the historian may take an economic law as basis, and will find that numerous facts are at once explained. Exceptions will probably be due to the presence of disturbing factors, and economic theory may again lend its aid to find them

5. Sources of Information

Economic History is a study of facts, but these are past and gone. Hence there will be ample room for surmise and theory. The facts cannot be studied directly, and in the long run we must rely on some form of record. The danger is obvious. Testimony, even when honest, is open to suspicion. In regard to historical records there is

always the danger of bias, conscious or not. The monkish documents, for instance, are generally coloured by priestly prejudice. The records cannot be selected; they have been sifted by age, and we must make the most of what we have. Even after great care has been expended, there can be no final certainty. Hence conclusions should be confirmed when possible; documents should be examined by different investigators in different ways. Theories are indispensable to progress, and save much time.

There was little quest for knowledge for its own sake in the Middle Ages, but fortunately we are greatly helped by the presence of records of taxation. A knowledge of the economic position of a lord's dependents made it easier for the lord to levy taxes most efficiently. Thus the accounts of bailiffs, manorial records, and above all the Domesday Book, are valuable sources of knowledge.

6. General Conclusions

(1) CONSERVATISM OF SOCIETY. Perhaps the most important general conclusion which may be drawn from a study of economic history is that there is in human nature and in human societies an innate conservatism. The principle that "what was good enough for our fathers is good enough for us" is found in the most progressive communities. Its justification is that a mediocre system is better than none; methods which have produced tolerable results in the past are accepted by most men, who prefer a secure livelihood to the risk of great success or great failure. The most progressive classes throw their reforming energy only into certain definite channels; in other directions they are conservative. Any reform, however just and perfect in theory, must encounter a heavy mass of prejudice, and if carried through never gives universal satisfaction. Some progressive peoples still hold their lower classes in a socially degraded condition, a legacy from past ages.

Economic History is often incomprehensible if this principle is not remembered. It means that each period is in living continuity with that immediately preceding, one merging into the other. It means that all change is gradual, without sudden jumps. Apparent exceptions are explicable. The English Industrial Revolution was not sudden, as it had been preparing for centuries; in actual duration it covered at least thirty years and is still continuing in some measure.

(2) ORDERED CHANGE. Next, we find that change is subject to certain laws; it is ordered change. If we have a certain state of things, and certain results follow, if again the conditions are repeated, we expect the same effects as before. When labour became scarce in the Middle Ages, wages rose unless other circumstances prevented. If the introduction of white men, with the exotic diseases and their stimulants, is a cause of mortality among Red Indians, we may look for a similar effect among the South Sea Islanders. Some laws will be almost certain in their working, others will be merely tendencies which are over borne by counteracting causes. An Economic law is not so definite as (say) the Law of Gravitation, though even this is subject to interference. The real parallel, as regards lack of certainty, is found in biological sciences.

(3) SOCIETY AN ORGANISM. This leads to the further curious conclusion that a human society is a kind of organism, and is living, in another sense than that it is composed of human beings. A society, like a tree or animal, is very sensitive to change in external conditions, adapting itself to suit its environment. A sudden shortage of corn in a country sends up prices, but a new equilibrium is soon reached, and things settle down again. A society again, like an organism, is a single whole though made up of many partially independent units. An organism soon recovers from a large, sudden change, but is profoundly

affected by a series of smaller changes all in the same direction; this is also true of a society.

(4) CHANGE GENERALLY PROGRESS Change is probably, on the whole, in the right direction. Sudden alterations are just as likely to be detrimental as beneficial; the sudden infusion of a commercial spirit into a nation may cause serious abuses. In the long run, however, abuses tend to be removed, and beneficial institutions to remain. Any abuse will, as a rule, have the weight of opinion in the country thrown against it, while an attempt to overthrow a beneficial institution will meet with effective opposition. Yet improvement is often broken and proceeds at varying rates at different times.

7. Change is Often Misleading

Economic change is subtle, and most real when least evident. The diatom retains the exquisite markings on its hard shell till the time comes for it to split in two. All the time essential changes have taken place in the living substance, but they have been hidden. The "sudden" leap from old to new Japan had been preparing for centuries, though change was unobserved. Sometimes progress is artificially hidden, *e.g.* often in constitutional matters. Lawyers still say that the king governs with the advice of ministers; the statement is a relic from a distant past.

Caution is needed when different countries are compared. Names are misleading, even for a single country, when the things they represent have radically altered. Much more, as regards different countries, must we be careful; the peasant in Denmark is very different from the Russian moujik. Again, development is never quite the same in two different countries. Thus, France and the United States are both, at the time of writing, Republics with Presidents at their heads; but the President of the

United States has far greater powers than the French President, and—very unlike the latter—may under certain circumstances assume a virtual dictatorship.

8. Nature is Conservative, yet Changing

In spite of the conservatism of nature and of human societies, the essence of all life is change, constant and continual. The explanation lies in the fact that an organism must alter when conditions change, if it is to keep in tune with its environment, but that such alteration rarely proceeds beyond what is necessary. There seems in nature little tendency to reach the best possible state, independent of external stimulus. In a society some change is caused by inter-play of forces within the community, by the following of ideals or the example of a great man, but generally external causes are the determining factor.

Our aim then is to explain each phenomenon at any time by some cause; when all facts are accounted for (an impossible proceeding) we have obtained a "statical" explanation for a definite period. Naturally this can be best done in a conservative society, where conditions persist. When we have completed the investigation, we understand the causes of change and can obtain a "dynamical" explanation of the progress of society. The condition at any time and the changes taking place are governed by the same laws; a complete statical explanation gives the dynamical, and vice versa. We saw above that societies are never altogether stationary.

9. Factors of Economic Change

The elusiveness of change and the difficulty of detecting its meaning are a result of the manifold nature of the causes which may be present. They may be apparent to the senses, or hidden. Their effects may be simple or far-reaching, easily observed or obscure. The factors may

be natural or artificial, and if the latter, may be purposeful or accidental. This purpose may be ethical, or without moral purpose. Lastly, the causes rarely work singly.

(1) HUMAN. We may first consider the human factor. In some ways all men may be equal, economically they are very diverse. No nation has a monopoly of all the wealth-producing qualities. At home the energetic Northerner contrasts with the tasteful Southerner, both being inferior to the Scotsman in keen self-interest and perseverance, though superior in originality and resource. The Germans, rarely brilliant, are industrious and persevering, while the French are unrivalled in artistic work. Indian coolies work on the proverbial handful of rice. A perfect workman would be hard-working, persevering, resourceful, and artistic; he would be able to save, and could spend in the most efficient manner, implying the moral virtues of self-control and temperance, together with knowledge. The tropics have an enervating and the arctic regions a deadening effect on workers.

Important though the factor is, it is variable. Nations gradually change in ideas and temper, as England is doing to-day, and this change reacts on well-being. The infusion of the Flemish and Huguenot spirit had a great effect in earlier times.

(2) POLITICAL. Next, the way in which the individuals in a country are banded together is of importance. We can thus explain many of the differences between feudal and non-feudal countries. A compact state, firmly held by a powerful sovereign, is more likely to progress in the arts of peace than a loose mass owing no real allegiance to anyone. A wise despotic king may be of immense use in furthering the interests of his people.

(3) CONSTITUTIONAL. The machinery of government, or constitution, may have important economic effects. If political power is placed in the hands of a minority for a

period (as in some measure in England and Hungary), this section will safeguard its own interests. For good or bad this has been the cause of England's conservatism in agricultural matters, while Denmark and Belgium have progressed; for good or bad it prevented Germany from embracing a free trade policy.

(4) LEGAL. The state of law was formerly more important than to-day. The first aim of legislation is to protect life and property and to safeguard contracts, and the effect is wholly beneficial. To-day a workman or employer knows or cares as little about the law as a whole as a healthy man about the condition of his body: there is nothing obviously wrong, and there is no need to worry. In the Middle Ages, however, enterprise and speculation were largely suppressed, and the question whether a man should be free or practically a slave often depended on a legal technicality.

(5) SOCIAL. " Social " or " collective " pressure is more important. The law of the land is definite and all-powerful, but has a narrow range. Social laws (*i.e.* customs and conventions) are often obeyed with equal readiness, but the compelling force is fear of public opinion, and in the Middle Ages no part of man's life was untouched. Initiative was thus crushed; but then society was kept within safe limits, and associations like the gilds and present-day German credit banks owe their beneficial effects to the force of public opinion. Such opinion is formed partly from the point of view of communal self-interest and partly by religious influences (especially in past times). Education is an increasingly important factor, but is merged into custom and character.

(6) GEOGRAPHICAL. More persistent than any of the above factors is geographical situation. Nature remains substantially the same, whatever else alters. The Dutch by their commerce, the Jews by financial skill, the Germans

by industry and ability have all become rich and powerful with little aid from nature, but such wealth is precarious; it depends on continuous, unremitting effort. The moment the habits of industry are lost, such nations are doomed, though they may be carried on for some time by the momentum of their already acquired wealth.

Soil is the first geographical factor; it depends chiefly on the nature of the underlying rocks. Something useful will grow on a good soil, whatever the climate.

Excessive heat is fatal to habits of industry; but food is generally easily obtained in a hot country, while clothing and shelter are not pressing needs. The importance of rain is all-pervading. These factors affect the production of wealth.

As regards communication, nearness to the sea is of great importance; deep harbours, unchoked by mud, and favourably situated for internal and external traffic are a national asset. Rivers leading into the heart of a fertile country are hardly less important. Hills are sometimes useful in providing a dry road along a ridge-summit overlooking marshes or forests below, but are generally effective obstacles to trade. Where a range separates unlike districts, communication is necessary. As a rule a mountain pass is situated at the head of two opposite valleys, leading to the plains on each side. These valleys form a well-marked route; population and industry will be concentrated here. In former times their possession was important from a military point of view, and fortified towns grew up.

It is not true that railways have completely conquered nature. They exist, as a rule, only where roads have already been made; many roads are found where an ordinary railway would be impossible. The Pennine railways follow the natural gaps in the hills, and similarly canals always use existing depressions (*e.g.* Caledonian Canal, Panama Canal). The greatest triumphs over

nature are those in which old routes have been adhered to, and the consequences, though greater in degree, are the same in effect as in the case of the earlier roads. Exceptions there are, *e.g.* after the drainage of the Fens and discovery of coal, but the main lines of development persist. Spain and Italy may at any time become great nations; Denmark may easily sink into insignificance.

10. Natural and Human Factors

It is needless to say that the history of a country is a factor in its well-being, because such history is a result of the factors mentioned, as they have worked in past ages. Hence, in studying Economic History we must at every stage consider the effect of two groups of factors—natural (mainly geographical) and human. Any change in these will infallibly produce some alteration in the condition of the people, and no explanation must be considered too absurd, if it has been properly examined. Causes do not often lie on the surface, and plausible explanations are rarely complete; above all, the discovery of a single cause hardly ever gives a complete explanation. Dogmatism is permissible only when these warnings are kept in mind. Changes, as a rule, will be due to the human factor; persistence, as a rule, will be consequent on natural situation

11. A Typical Development

A typical development may now be considered. Though researches have shown endless varieties of change, certain normal phases have been noticed.

(1) Savage Times. At first a country is peopled by savages, in a low stage of civilisation, who live as best they can on roots, wild fruits and animals, while superabundant clothing is not necessary. Slowly a rough agriculture develops; the savage notices the edible plants, and after long ages the custom grows up of clearing a portion of

ground so that some part is given up to these plants. Perhaps, indeed, agriculture first develops by the simple removal of useless growth. In any case the beginning is probably accidental, and the evidence seems to be that the savage at first cultivates plants rather than tames animals. Fishing and hunting are dependent on opportunity.

(2) FARMING. When life becomes more settled animals are tamed, at first for show or pleasure, and are seen to furnish meat or milk; more attention seems now to be given to pastoral industries, and developed agriculture comes later. The latter very slowly improves under the stimulus of increasing population; more land is required for pasturage, especially when by-products, like wool, begin to be appreciated. The land gradually fills up and, except in wide spaces, like Central Asia, settlement begins. Especially where agriculture gains the upper hand, men become bound and fixed to the land, and property, at first held in common, develops. Inheritance naturally follows, and customs crystallising into laws, are a necessity. The best and best-situated land is infallibly taken up, if it requires little labour to work it, and after struggles it falls into the hands of the most powerful chiefs. Thus the strongest men are in a doubly advantageous position, and possess much wealth.

(3) DEVELOPMENT OF CLASSES. A priesthood spreads light and learning, and the weakest and the conquered do the hard and unpleasant work. The lord cannot farm all his land, but he exacts blackmail from those whom he "protects." In time, his underlings hold the land they tilled to be their own, on condition of service and payment, while the slaves have no rights. Here we have the beginnings of the development of those "classes," so prominent to-day in a London suburb or a country market-town. Land is still largely held and tilled in common, as in Russia even to-day. Each lord holds his dependents tightly;

each dependent looks to his lord as superior. All the dependents are bound by a common interest; they hang together like the servants in a great family to-day, and they are at enmity with other groups. Little communication exists, and each group is self-sufficing, while strangers are looked on with dislike. The groups are bound together only by occasional communication and by adherence to a common lord. Manufactures (all by hand) are few, and tastes primitive. Wealth shows itself in display and hospitality.

(4) TOWNS. This homogeneous structure cannot last. Differences develop, until at last towns spring up. One grows at the head of a deep harbour, another at the lowest point of a big river which can be bridged or forded. But the towns also develop inland. Some abbot in a green fertile valley, by a river well stocked with fish, builds up a flourishing and well-fed community, and a neighbouring village may easily grow to be an important town. Some lord may draw his revenues from a similarly rich district, until his accumulated wealth makes him all-powerful, attracting a numerous population. Another lord may have the good fortune to possess a castle on a steep bluff overlooking a fast, deep river, and a Richmond grows up. Another lord may master the neighbourhood by the force of his personality, and followers crowd round his castle for protection. A meeting of the roads or valleys, an important ford, and in a few cases a hill-top—all may fix the site point. The origin is largely accidental; once the village begins to grow, its power increases more than in proportion to its size. The weaker towns are suppressed and the stronger grow more strong, and out of the struggles only a place well-situated or well-governed can emerge successful. Rivalry takes place as to which centre shall be the natural meeting-place of the country round, until the whole country is mapped out into protected districts studded with towns.

(5) TRADE. The towns now form centres of opinion, and knowledge is disseminated. Progress in the country is still slow, but the towns have a kinship with each other. Each develops on its own lines, and produces chance specialities in manufacture. These, or overflow produce, are exchanged, and this exchange is the beginning of commerce. The country sends its goods, not to other parts, but into its towns, and travelling pedlars have a convenient market. Abuses necessitate rules, and sale is regularised in markets and fairs. Many towns obtain a special position by charters, and a civic pride grows up. Trade provides a direct stimulus to manufacture, and foreign commerce becomes important. A race of merchants develops, forming powerful combinations, which are met by combinations of the rival hand-workers. Still, all is on the whole self-supporting. Next, one region begins to specialise: one country grows wool and another makes it into cloth. Different nations begin to exhibit peculiar characteristics with regard to trade and industry. All is yet stable, and industry is subject to few dislocations.

(6) SCIENCE. Then science enters the field and teaches us how to increase wealth a hundredfold. Commodities are thrown over the earth's surface in apparently hopeless confusion, but really under strong guidance. Manufactures grow, commerce is made easier, and men's thoughts and ideas are loosened.

Then, for good or bad, the human material is driven loose from its moorings and cast hither and thither over the country in quest of more gain, and human lives are treated as pawns by money-making manufacturers. Class interest, altering in kind, increases in intensity, and pitiless, self-interested competition becomes the motive power in life. There are signs of a reaction, but what the end will be none can certainly say.

CHAPTER I

EARLY TIMES

1. Roman Invasion

The Roman Invasion was in every way a landmark in our history. Instead of warring tribes a peaceable people arose, firmly bound together, though by external forces. The art of civilisation is easily learnt where there are willing pupils and forceful masters, and the Britons slipped into the ways of their conquerors and accepted a foreign culture without question. A system was built up in some respects not unlike the England of the present day, with an over-civilised town population drawing supplies from a well-cultivated fertile soil by the aid of excellent roads. The rich Roman citizen, with his British imitators, formed a focus towards which the wealth of the country moved. Yet the civilisation was a hothouse growth, and premature luxury sapped the strength of the people, so that when the Romans withdrew, the stimulus they had applied disappeared and with it their influence.

2. Teutonic Invasion

The Teutonic Invasion was a deluge, but its effects are obscure. Later records show a large percentage of slaves on the Welsh border, and many free men in East Anglia, suggesting that the Britons were driven into the west, but not exterminated. The Roman structure was mainly lost, and yet it must have affected the customs of the incomers, who, however, kept their own speech.

This brings us to the celebrated " mark " theory. The Teutonic love of freedom has inspired the thought that in early times men were free and equal, differences gradually developing. A study of villages in India and elsewhere (*e.g.* by Maine) apparently showed the existence of

communities of such men. Hence it was supposed that Germany was at one time full of such groups; in each all the inhabitants held land in common, and private property in land was unknown.

It was supposed that the English invaders brought the system into our country, but that it here, as elsewhere, degenerated because powerful men gradually obtained advantages till finally they or their descendants mastered their inferiors. Direct evidence on the point is slight, but it is hard to believe in the actual existence of a state where there is no differentiation at all among landowners. Though such a state may be fairly stable where formed, its formation from a differential community seems unlikely. Seebohm and others, in their zeal for the destruction of this theory, have adopted the opposite extreme view that the communities were at first largely servile, gradually improving in condition as time passed; but this theory is hardly in accordance with our knowledge.

Though the extreme view of the " mark " system cannot be accepted, yet it probably contains a germ of truth. On the one hand, Roman civilisation was built upon the labour of a great number of slaves for the benefit of a very few great men, and this system, introduced into Britain, may have persisted in some measure after the English invasion; on the other hand, slavery among the Teutons was probably commoner than has been supposed by earlier theorists, though it certainly never existed on anything like the Roman scale. Much depends on the persistence of the Britons after the invasion.

The English followed the valleys, main and tributary, often right into the mountains, and even over the Pennines, but " islands " like Elmet would remain between the main currents of invasion, defended by rock or marsh, and in them Celtic influence would persist. Here the " mark " system would have little chance to develop, and if it existed it would occur where Celtic influences were swept away.

3. Norman Conquest

After the Norman Conquest the victors were in a minority, and there was no question of wholesale displacement or extinction. The daily life of the people was probably little altered, and arrangements affecting the lower classes generally persisted, as change would have meant needless trouble to the landowners. The essence of the Norman system was a limited private property in land, while the labourers were bound firmly to each other and to their common lord; slaves were in a minority and soon almost disappeared. It is believed that a similar state of things existed before the Conquest, so that the later condition was the natural outcome of the English system. As developed in the Norman times, this was known as the Manorial System.

The lower classes in any district clung together in a heavy mass, with great opposition to change; severally each man was in the power of his immediate superior, but if the lord tried to exercise his power arbitrarily, the dependents could rely on the manorial courts, whose authority the lord obeyed. This recalls the feudal system, and it is tempting to correlate the manorial system with the Conquest. We suppose, however, that England was already feudal in structure as in ideas, and that the class system had developed apace. That is, the feudal nature of the manorial system is no bar to the conception that it was a continuation of an earlier manorial structure.

In France the barons were almost independent; William, in England, by breaking up the great Earldoms, placing restrictions on castle-building, and other devices, retained a universal supremacy. Still, the barons had great power, and through the country it was the immediate superior whom an individual obeyed and of whom he held his land. On a manor the tenure of the "tenants" might be free, unfree, or religious. The highest class owed military service only, but some free tenants paid only a fixed rent.

Those who were free by custom, not possessing a charter, were called *socmen*, and were said to hold their land in *socage*. The base tenure is to-day legally represented in copyhold. The remaining kind of tenure had only religious liabilities attached.

Concentrating on Norman times, we must say that the presence of energetic lords must have made for more successful cultivation. The theoretically absolute power of the lord (subject to the king) was limited in practice by the customary rights of his inferiors. He could, however, apply much pressure, and his self-interest lay in the direction of efficient cultivation. How far he could enforce his will may be better seen after the description of a typical manor.

4. Teutonic Villages

In mountain districts in England, where land is poor and abundant, farmers live in scattered houses rather than in villages, as they do where the land is richer and more limited, especially in East Anglia. In Early English times the displaced Britons seemed to have favoured the former system, but the English, though disliking towns, congregated in villages, largely because of the method of division of the land. In very early ages the family or clan was the unit, but as population increased and good land became limited, clans combined. The patriotic spirit persisted, though less intensely. Thus favoured spots became settled; these perhaps attracted outsiders, and a village grew up.

5. Records

So far there is no absolute certainty in our reading of economic life; much is deduced from later records, while historians have disagreed on most of the points in question; hence our conclusions must be held to be open to revision. But our difficulties are lessened after the Conquest. The

Domesday Book was followed by other more elaborate private records for single places. The later " extent " or survey of a manor was the result of an opinion given to the steward by sworn jurors chosen from the tenants, and it concerned the whole condition of the place, including an enumeration of the inhabitants. Extents were known in England in the twelfth century, and became common in the next century.

Another manorial record, the Inventory, contained an enumeration of the goods and stock, and it also became important in the thirteenth century; while the Court Rolls, which contain records of transfer of property and change in status, enable us to trace the changes from time to time. The Domesday Book contained very brief extents and inventories for the whole county, primarily of course for taxation purposes. To-day it gives us much definite information concerning the economic life of the time.

6. Domesday Book

The Domesday Book not only described land and its adjuncts, it also attempted a valuation. Among general points we may notice that the value increased with the number (*a*) of men, and also (*b*) of ploughing teams. We note also that the values are given for three particular periods; in most cases land dropped in value after the reign of Edward the Confessor, the lowest point being generally reached when William had just granted the lands to his followers.

Perfect reliance cannot be placed on the Book. Many Yorkshire manors were valued at exactly the same sum, a fact only to be explained by careless surveying or by the existence of a conventional value.

Many definite statements were made not only as to the value of the payments to the lord, but also as to the method of payment. Sometimes a certain sum of money was

mentioned, the remainder to be paid in kind; sometimes the nature of the animals or produce was specified, often the money was to be paid in a certain manner, by weighing and testing.

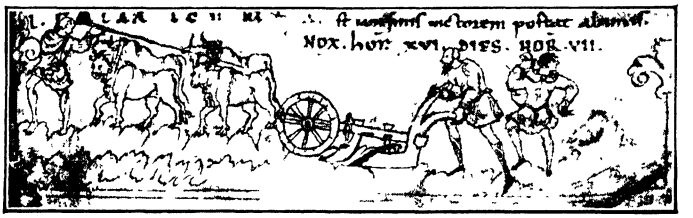
Many matters of detail were carefully noted. The mill was generally mentioned, as was the existence of a market. The waste land was described, and often it was observed that the arable land could support more teams, and could reach a higher valuation. Imported commodities like salt and iron were described.

The Domesday Book, however, is mainly useful in showing the state of cultivation of the land and in enumerating and describing the inhabitants. We often meet with the term " vill." This is not the same as the " manor," which gave its name to the system. The former represented any district or collection of houses which possessed a name; such a *vill* generally contained a church. A manor was generally a piece of land in one place which belonged to a single owner; it had a definite legal and customary individuality. A vill was either a part of a manor, or consisted of more than one manor; exceptionally it contained one only. These distinctions were not clear-cut, but are sufficient for our purpose. Vills tended to be comparable in size; manors had a wide range in this respect. Hence the number of manors which belonged to a lord gave little idea of his wealth.

7. Open Fields

We see that manors had a more or less similar structure. " Open-field " cultivation, *i.e.* without hedges or walls, was universal, and the land was cut into strips. A plausible explanation of the origin of this system is that originally, land being ploughed in common, the tenants all helped to guide the implement, and that the amount ploughed on the first day might be given to the owner of the implement. On the next day the portion would be taken by the lender of one

or more oxen (then beasts of burden, as on the Continent and even in parts of S.E. England to-day). When all had received portions, it would be the turn of the owner of the plough (say), and so on. This is a doubtful explanation of a definite phenomenon. Whatever the origin, the custom persisted through blind conservatism, and its relics survive in parts of England to-day.



PLOUGHING THE OPEN FIELDS OF THE MEDIEVAL MANOR
From British Museum MS Cott. Julius A VI.

The quantity of land which could be ploughed in a day varied from place to place and from time to time; it depended on a large number of factors. Yet there was some approximation to equality, and the normal quantity was called an *acre* (Old English *æcer*, a field). Naturally, it would not convey the same precise meaning as to-day, but furnished a rough measurement, satisfactory enough in any single district. An acre, or half an acre, was the standard area of a strip.

A strip was generally a furlong (220 yards) in length and a chain (22 yards) in width, and was measured by means of a rod or pole $5\frac{1}{2}$ yards long. The strips lay side by side, forming long sections 220 yards wide; these were called furlongs or shots. Where the ground was irregular in shape, triangular strips were found. Between every two strips was the space on which the plough was turned; this was left as the only boundary mark.

One man's holding was called a *virgate*, and consisted of a number of such strips, normally thirty, and variations generally bore some simple relation to this quantity. The strips were always scattered, and never formed a compact whole. The pasture land was used in common, the rights thereon relating to the number of animals which could be grazed; this number was limited partly by custom and partly by the amount of the tenant's arable holding. There was freer access to poorer pasture away from the village, and to the woods generally existing near it; rights relating to fuel and the like were valuable. A village was generally situated near a stream, and hence frequently included some rich meadow land; this was either taken by the lord, who perhaps let it, or was divided like the arable land. In any case it was thrown open to grazing after the hay harvest.

8. Cultivation

Cultivation was at a low level. Present-day methods of rotation and manuring, as also many familiar roots and crops grown to-day, being unknown, the land was not very productive. In early times half the land was left fallow, so that each half was tilled and used for pasture alternately. This is known as the **two-field** system. In the **three-field** system only a third of the land was permanently fallow; it was a distinct advance. Of the three fields, one was sown with wheat, one with oats or barley, and the third left fallow. The next year one of the first two was left fallow, and the year after the remaining one.

	1st Year.	2nd Year.	3rd Year.
FIELD A	Oats or barley	Fallow	Wheat
FIELD B	Fallow	Wheat	Oats or barley
FIELD C	Wheat	Oats or barley	Fallow

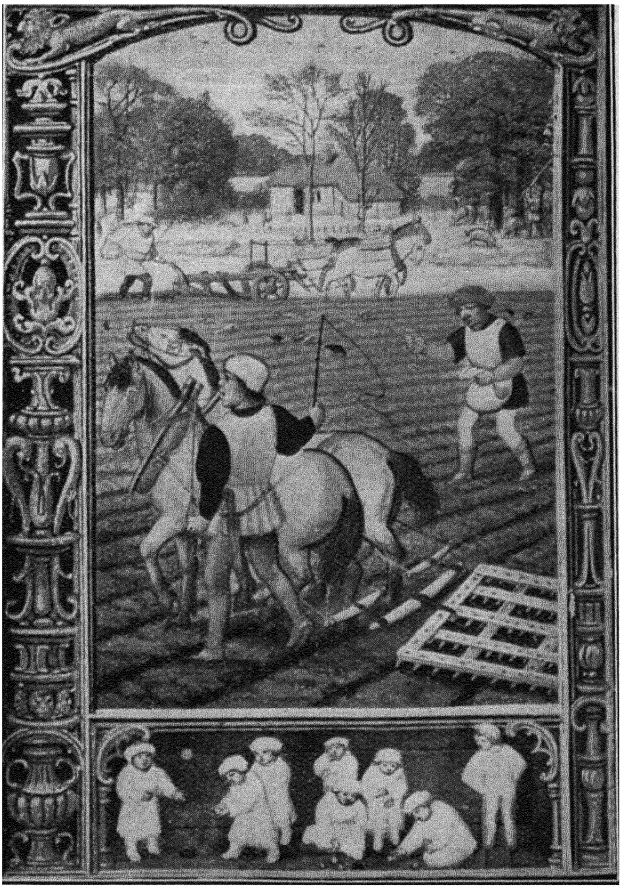
The fields were generally quite distinct, sometimes on opposite sides of the village, and each holder possessed a number of strips in each field.

9. Conservative Methods

The cultivation was carried on according to time-honoured methods, and the yield was very small. There was little difficulty in supplying the needs of the scanty population in normal times and little stimulus to improvement except from the lord. The land was the private property of the cultivator, at least for the year, but the holder was bound by great restrictions. He had to plough, sow, and reap at the same time as his neighbours, as all used the same field; all were bound by custom, and, most important, the ploughing and reaping were generally co-operative; relics of this custom still persist. The co-operative ploughing was good enough on the whole, though it must have pressed hardly on individual holders, and a certain equality of treatment was afforded; but the communistic element in every other way was bad.

Social virtues can hardly have been inculcated, as the system was kept alive by a settled opinion and a dull pressure, while there must have been ample room for disputes. No important improvements could occur, as an innovator was generally looked on with suspicion; in any case he required the co-operation of the other holders. It may be imagined how difficult it would be to practice a particular method of cultivation in the middle of a modern farm.

The strips were situated in three fields, perhaps a mile or more apart, and the difficulties arising from this arrangement are obvious; above this, time would also be wasted in passing from strip to strip within one field. Land was wasted in boundaries; much land which should have been allowed to fall to pasture was tilled, and vice versa, as any alteration would affect the distribution of strips.



HARROWING THE OPEN FIELD OF A MEDIÈVAL MANOR, FOURTEENTH CENTURY.

From a *Book of Hours* made in Flanders.

It was useless for one single farmer to take extraordinary pains to clear his crops of weeds (a difficult enough task at best), as in such a crowded field these would spread with the greatest ease from one strip to the neighbouring strips. The farmer ripe with experience was in the same position as the most careless youngster; all must follow the same path. An experienced holder who had something of value to offer could only use his ideas if he could prevail on the whole of the cultivators to follow his example. Yet it was an interlocking stable system, and persisted as long as a large production of food and raw material was not needed.

10. Stability of System

One source of instability was absent, *i e.* a rapid increase of population. This would have acted in two ways: a larger population would have required more food, necessitating a larger cultivation; and there would have been more men on the soil, agriculture being the dominant industry. Thus there must have been variations at different periods in the number of those dividing the land, and the sizes or numbers of the strips; in a word, the virgate must have altered. As a matter of fact the holdings did vary in size, but the area was such that plainly the variation must have resulted from aggregation or simple division.

The explanation of these simple variations can be found partly in inheritance, chiefly as regards division. A prosperous farmer would tend to increase his holding. Division would never go very far. In the first place a very small holding was hardly worth cultivation, and could not be tilled at all unless spare-time work could be found. Hence, as such dependent work would have meant degradation in social position, efforts were made to prevent such subdivision, and so the strips were often unaltered in size, but worked in common by the members of a single family. The principle of solidarity and family pride would prefer

this method to that of giving all to one member (as in primogeniture), the others losing social position.

Again, large holdings up to a certain point are more economically and less wastefully worked than small holdings, apart from the fact that subdivision would cause waste on boundaries and in other ways. There was a powerful pressure from above. The lord, or more commonly his representative, would not wish to deal with a number of petty holders, as this would enormously increase work, and lessen receipts on account of diminished produce. It was much simpler to deal with a few responsible important holders. Hence in any question of doubt, where the lord could exert any authority subdivision would not occur.

11. Lord of the Manor

We must now turn to the social side. At the head was the lord or his representative, who lived in the manor house or hall. He sometimes possessed strips in the common fields; he possessed also rights of open pasture, and in addition the best land, sometimes even arable, generally meadow, was devoted exclusively to his use. Later he began to let off portions of it to the more important holders. The whole of the land assigned to the lord was called collectively the *demesne*. The proportion of the demesne to the whole might be about a third. Personally, the lord stood far above his inferiors, who were more on a level than the classes of to-day, and his power over his dependents was only checked by custom and the manorial court.

12. Villeins

The bulk of the land was cultivated by the villeins. A villein was by no means a slave: he was said to be held as free in regard to everyone but his lord; but to him he was bound in theory. His holding was generally the virgate of about 30 acres, with the rights of pasture, etc.,

already mentioned. He was bound to the land, and could not leave without his lord's permission: his lord, however, could transfer him to other land; on the other hand, he held a certain customary interest in his holding. Even to-day the Irish peasant looks on his land as peculiarly his own.

In theory the villein was quite in the power of his lord, and had no protection against him except in the manorial courts, as the law of the land would not interfere between lord and villein. The " payments " to the lord were of two kinds: personal, and in goods. In the first place the villein was required to do " week-work," or to work on the lord's demesne for so many days per week; the number was generally fixed, but the times were generally settled by the lord's representative. This was the plainest mark of villeinage.

A villein also had to do " boon-work," that is, labour on the demesne at certain pretty definite times during the year. These were generally at spring and autumn ploughing, and at harvest; and it will be noted that they were just the times when the giving of such help was peculiarly inconvenient to the villein, a fact which became of much importance later.

In later times at least, quarterly payments were made in money and always partly in kind, either in animals or in corn. There were miscellaneous payments in kind, differing from manor to manor, and in labour, *e.g.* carting, which again might be required at inconvenient moments. A fine was also to be paid at definite times, as on the marriage of a daughter.

The latter, the merchet, was the commonest mark of servitude, though it was sometimes absent, and occasionally freemen were liable to it; other miscellaneous feudal incidents existed. Although the touch of bondage was present, yet the certainty of the requirements robbed it of most of its sting.

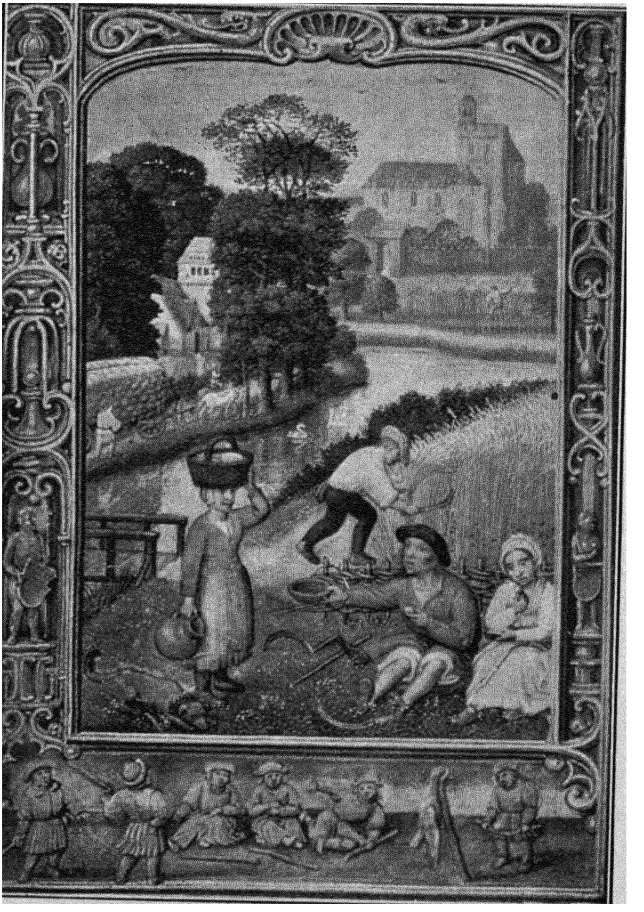
13. Cottars

Next in number to the villeins came the cottars, an inferior class. These differed from the villeins in social position, greater servitude, dependence on others, and amount of land held. As a rule a cottar held only a cottage with five or ten acres, insufficient to cover his needs. The cottar class may have been formed in two ways: just as the villein is supposed by some to be the degraded descendant of the "mark" freeman, and by others a descendant of the old-time slave, so the cottars originated both by the gradual amelioration of the lot of the slave, and by the sinking of incompetent villeins or of those who came of a large family. The tendency would be for the more prosperous villeins to increase their land at the expense of the weaker.

As the villeins, at least later, would be in all degrees of prosperity, there are here to be seen the class distinctions so marked to-day. The cottar could only live by employing his spare time on the land of others. As he had less land, so less work was required of him by his lord, and his small holding would not take up his time. Hence he was both able and obliged to help either the richer villeins or his lord, for which services he obtained payment in goods or money.

We see here the beginning of the paid labourer, working for wages. The larger villeins would not be able to till all their ground alone, so that they were either helped by the cottars, or else a large holding was cultivated in common by a compact family.

Below the cottars stood the slaves proper. These at the Conquest were few in number, and were most in evidence on the Welsh border. They were in absolute subjection to their lord in theory and in practice, and were probably the remnants of a conquered race. The Britons, where they remained, were evidently enslaved; and the same sometimes happened to the conquered English in the Danelaw.



REAPING IN THE OPEN FIELDS, FOURTEENTH CENTURY.
From a *Book of Hours* made in Flanders.

The last important class is that of the freemen. Freemen were very common in the eastern counties, in the Danish portions of the country, but existed in some degree everywhere. The warriors who took the land for themselves after the Saxon invasion tilled it and settled down as freemen; these would perpetuate their kind. Again, prosperous villeins became rich, and either by favour of their lord, by exceptional service, or by payment became free. Sharply cut off as the freemen were in theory from the villeins, there was no hard and fast line in practice; it needed all the skill of lawyers to decide the question.

The freemen had as a rule similar obligations to the villeins, as was natural, seeing that the land belonged to the lord, but these were more clearly defined, and partook simply of the nature of rent. A freeman either did no week-work, or else its quantity and the time and manner were fixed; he paid no fines. Complications occurred when a freeman took on a holding under villein conditions, if he tried to maintain his personal freedom; the distinction between this and freedom as regards tenure was not always then understood.

14. The Demesne

We can now better understand the demesne. It was cultivated in the main by the week-work and boon-work of the villeins, cottars, and freemen. This work was, however, not usually sufficient, and so the cottars gave their spare time to cultivation of the lord's land for wages. The poorer villeins did the same, and the richer achieved the same end, at a later time, by tilling a fixed part of the demesne for a certain rent. This relieved the lord of trouble and responsibility and brought in a steady income. There was little permanent labour exclusively given to the demesne, except by the poorer cottars, and the paid labourers (later). The lord was compensated for the freeman's independence by the obligation of military service.

15. Manorial Officials

Just as the villeins varied in individual prosperity and status, so the lord of the manor might be a powerful noble, a bishop, or even the king himself on the one hand, and on the other the owner of a single manor. In the latter case the lord would live in the hall, he would know the condition of affairs, and he could do much of the work of supervision himself. Often, however, the lord had no connection with a particular manor, beyond occasional visits for feasting or other purposes, and his one aim was to draw as large an amount of supplies as possible.

In this case he appointed a representative, the bailiff, who lived in the hall, watched over his lord's interests, acted as his mouthpiece, settled all demesne business and the relation of the villeins to the lord; he took care that all work was adequately performed on the demesne at the right time, and gave orders to the villeins and cottars (but not the freemen) at what time and in what place they should do their work. As the demesne land was intermingled with that of the villeins, it was to the lord's interests that the ploughing and harvest should be done at the right time and in the right way, and the bailiff was responsible for this. An energetic and careful bailiff, who could keep his accounts and was devoted to his lord's interests, was an invaluable help; but the office was not always a pleasant one.

An office which might be yet more unpleasant was that of the reeve. He acted as foreman of the villeins. Some of his work resembled that of the bailiff, and, either in conjunction with or under direction of the latter, he had to arrange the distribution of land and the dates of ploughing and reaping—work which would not always make for popularity. Further, he was a man on whom the lord could vent his displeasure, or whom he could hold responsible for any mistakes; where he was not acquainted with the manor he required a single person to represent his tenants.

Hence the reeve lay between two fires. Sometimes his position might be one of responsibility and honour.

The other important manorial officer was the steward, and he was rarely attached to a single manor; he controlled and watched a number of bailiffs, guiding them as regards general principles and putting a check on their self-acquisitive powers. He was a representative of the lord in a larger and more important sense than the bailiff. His real importance lay in the fact that he controlled the manorial courts.

16. Manorial Life

The life of the people lay in the fields, and agriculture was all-important. It determined the nature of the village; it was impossible, as in Celtic times, to live near all the land to be tilled. Hence all the tillers lived, not on any part of the holding, but in a central position for all the strips. This state of affairs necessitated village life. The situation of the village was of course determined partly by the position of the cultivated land: assuming that the objective of settlers was fertile soil rather than a suitable settling-spot. The village would tend to be exactly defined, however, where possible, as the centre of gravity of the strips, but geographical advantages would be sought after. Chief among them would be the presence of a river, but a cross-roads might develop into a village irrespective of the existence of fertile soil. The houses of the villeins and cottars lay in one or two long streets leading to the stream, where a bridge or ford might form a natural centre. Any peculiarly favoured spot was seized on for the manor house, and not far away was the church. Shops did not exist; some of the cottars were occasionally artisans, but these were few in number, though a smith was generally to be found.

The women wove their own cloth, and the men tanned their own leather. A people of simple tastes did not need

skilled artificers. The mill was a necessity, and was driven by water in favourable spots; in other cases windmills might occur on hill-tops. In early times at least the mills belonged to the lord, and all the tenants were forced to grind their corn at it, paying of course due toll, search being made for illicit handmills. Later a villein may have acquired the monopoly for a suitable consideration, the miller thus originating. The size of the villages and the extent of the cultivated land varied enormously, and the boundaries between manor and manor were jealously marked off. The whole manor was probably not unlike the most primitive country hamlets to-day, and perhaps still more resembled some present-day Russian villages.

The people would be something like our own agricultural labourers. The priest, generally drawn from the same class as the others, but probably superior in intellect, would stand out with the bailiff and the reeve, the freemen, and one or two of the more prosperous villeins. The social position of the villeins, however rich they were, was lowered by their villeinage, just as some of the rich Russian manufacturers of the last century were still serfs.

17. Manor was Self-Sufficing

The essential point to notice in the general working of the manor is that each community was on the whole self-sufficing, though less so than in English times. There was great rivalry and hatred of neighbouring manors, while men living at some distance apart were practically strangers. There was little mutual helpfulness between different manors; one community might be starving while another a few miles away had abundance of corn.

A state is an organism; but this was one of low development, like a coral, which consists of many tubes all alike and doing the same work. Where there was abundance of a product in one manor, there was a tendency to similar abundance in other communities, so there was no continuous

opening for trade. Hence there was no room for specialisation in certain work by certain manors, just as within the manor itself all the workers were more or less similar. Surplus products as a rule were of no use in other manors (though they contributed to town growth), and this, following on the simple tastes of the period, was the cause of such inefficient methods of agriculture.

The manor was self-sufficient not only economically, but socially. Each community formed a large family, in which many members were bound together by ties of blood, and which in spite of divisions presented a united front to the "foreigner." Even to-day in most country villages, two or three surnames are dominant, and local feeling persists in a Cornish mining or a Midland manufacturing town. The stranger was suspect.

The manor had a declared independence in that it was a corporate body. Norman feudalism hardly affected manorial life, so that local law and custom were dominant.

18. External Influence

Some external communication there must have been. Fairs and traders would bring about some connection with outside; central pressure was strongly felt in Norman times, and the priesthood formed a connecting link.

In spite of the narrowness and backwardness of the manor there was little industrial unrest. Permanence was all to the good in those ages where the chief foe in quiet times was the unknown, and under a strong and wise king it is probable that the masses as a whole were not unhappy. At that period a king really ruled; and as he could set his stamp on a small population (the size of a big English city of to-day), his personal character was of importance. Independence was less common than now: all must obey a superior or a custom.

We must now leave this typical structure of early Norman times, and survey the period up to the Black Death.

The English had despised the Roman fortified towns and made their own clumsy defences, living in their own villages. There must always have been a little internal trade, and possibly the English brought the "market" institution from abroad. At any rate, market towns had developed, whether in villages larger than the ordinary or on the boundaries of two manors (an improbable assumption considering the convenient position of most market towns). With one or two exceptions, however, inland towns did not reach any great size.

19. Danish Invasion

The Danish invasion requires more attention than is usually given to it. This people supplied to the weakening English a virile energetic element, which has left its traces in character and in speech to this day, and which has had a large effect in later history. The keynote of the north and east now became independence. Freemen were common, and the restless Danish spirit encouraged trade and tended to break down manorial restrictions. Again, the Danes tended to settle in larger villages than the English.

This meant two things: it meant that trade would spring up, not only with Scandinavian relatives, but between village and village; some roving spirit would carry news to and fro, and exchange of produce would result. Then some favoured commodity would be made in larger quantities, till it became a speciality of the place, like the later Kendal green, a species of woollen cloth. Thus trade was further stimulated.

It also meant that the Danish love of larger villages provided a convenience for such trade. Hence grew up the East Coast ports, and the Danelaw towns like Stamford and Leicester. The Danish independence concerned usages and customs; the Danes did not scruple to profit from trade. The day of the sleepy satisfied agriculturist in these parts of England was gone. Yet development was

slow. The towns represent only a beginning of that phenomenon of urban life which is so characteristic of the thirteenth and fourteenth centuries. The new towns were not in direct connection with the old Roman cities, but grew independently.

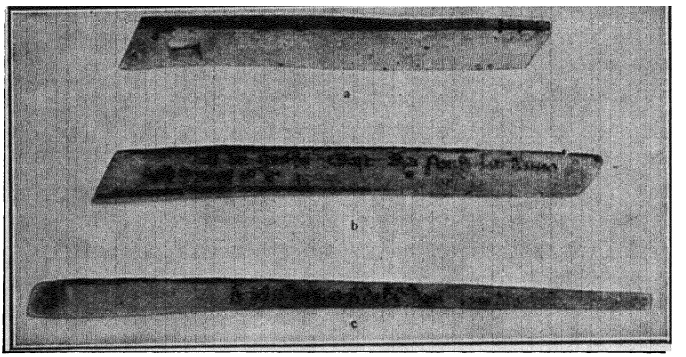
20. Effect of Norman Conquest

Great as was the political effect of the Norman Conquest it had less effect as regards the continuity of economic life. Feudalism and the manorial system—as has been already suggested—were not introduced at this time, though certainly they were made more definite. The life of the villeins was hardly altered, except in the fact that they changed their masters. The people in such early times were much affected by the personal character of the king, the troubled period of Stephen forming a marked contrast to the peace of Henry I. and Henry II., which encouraged agriculture and trade, apart from improved direct relations with the lord. Peace and good laws were necessary in that they made secure the life of the villeins, fixing their relation to their lord; but there was yet little interference with the course of trade.

The definite, sudden effect of the Conquest may be stated as—first, the increase in power of the individual manors; this was in large measure due to the extension of the feudal system. As a villein was more clearly under the power of his lord than the Saxon unfree tenant, he had to look to him in all things, and all his interests were in his own community.

Next, the position of the manors and the relation of lord to villein become more clear and definite. Even where a villein had nominally the same rights and duties as the Saxon unfree tenant, in reality his position might be very different, as legal obligations might now be more strongly insisted on. The dependents again were more plainly defined into definite classes.

The distinction between freemen and villeins also tended to disappear, partly owing to the amelioration in the condition of the latter, and partly owing to suspicion of the freemen by the new Norman conquerors, whose feudal ideas were all against the notion of freedom of person. On the other hand, the idea of slavery was repugnant to the Normans, and the lapse of the poorer cottars into slavery was stopped.



TALLY STICKS OF THE THIRTEENTH AND FOURTEENTH CENTURIES. Used by the Exchequer as a register of accounts, or as receipts. (See Art. 22.)

21. Later Changes

As regards gradual changes from this time to the Black Death, the most striking was the growth of a new class of free tenants, who were free in regard to conditions of tenure. They grew up by the commutation of services for money or for payment in kind. At first a lord might have command of more labour than was needed; when some rich villein determined to be free, and offered a liberal portion of his produce for this purpose, the offer would generally prove too tempting. The produce represented a definite rent.

Later, when money came into general use, services would have a definite value, and such commutation would be easier. Hence as the country prospered under peaceful government, the villeins became richer and freemen became common. Again, if a bailiff decided to take in more land, or enclose the waste, he could do it conveniently by giving it to a villein to till; the latter would pay a fixed rent, and might thus obtain the status of a freeman. Again, the bailiff might be unable or unwilling to cultivate all the demesne, and a freeman would arise in the same way by the letting of land.

Officers Receiving and Weighing coin at the Exchequer. Twelfth Century. (See Art. 22.)
From the *Canterbury Psalter* in Trinity College Library, Cambridge.

As regards commutation, week-work would be first exchanged for a money rent. The lord would always be in want of men at special times, so that he would not be so willing to commute boon-work; but commutation gradually occurred. Yet it was long before villeinage wholly

died out: even as late as Elizabeth's day about one per cent. of the population held land by villein tenure. The seventeenth century saw its complete disappearance.

It is extremely important to notice that the lords would have refused to commute services if they had not been sure of obtaining labour equal in quantity and at a cheaper rate. This act implies the existence of labourers. As population increased, the supply of land being limited some had to do without it. Thus the ranks of these labourers were largely recruited from the villein class; others had descended from the old slaves or had sunk from the cottar condition. With the cottars, they lived by selling their labour to the lords or richer villeins. They are forerunners of the present proletariat, or the class which depends on capital.

22. Revenue

The revenue of the State was obtained chiefly by direct means. The produce of the domain, or king's land, the payment for the king's jurisdiction, feudal incidents (miscellaneous payments to the lord), tolls, Jews, taxes like the Danegeld, and so on generally covered requirements; if not, special taxes were resorted to. Money was coined even in English times, but a single definite mint first existed under Henry II.

23. Foreign Trade

Trade had existed before the Conquest. The Danes had used the long, slow rivers on the east coast leading into the heart of the country and opening up fertile plains, and the establishment of the great Irish ports, *e.g.* Dublin, Cork, Limerick, and Waterford, belongs to the same period. Yet the Conquest supplied a great stimulus. Europe as a whole had been progressing for a long period, and much trade took place between Continental countries. The Norman invasion brought England into the European circle,

and this country began to obtain some of the more important foreign commodities. The effect was mainly confined to the Norman nobles, who naturally enough still looked back to their old country, and kept up communication with their Continental relatives. There seems to be much evidence for the supposition that the first immigration of Flemish artisans now took place, it being remembered that William I.'s queen was a Fleming. Internal trade was similarly stimulated by the repression of private warfare.

Two commodities had to be imported. Salt was a necessity in those days when only selected animals were allowed to live through the winter, salt meat being the winter food. Some salt could be made by evaporation in the southern counties, but the purest was imported from Guienne. Iron was required for the ploughs, though much was obtained from the Weald deposits by the aid of charcoal smelting. Later, tar from the Scandinavian forests was used to prevent "scab" in sheep. Lead, tin, fish, and meat were other articles of trade, and spices were probably imported from the East. We know from Henry of Huntingdon (1155) that cattle, wool, and jet were then sent to Germany, while silver was brought back in exchange. The slave trade was common in Saxon times. On the whole, between the Conquest and the Black Death there was an enormous development of trade, especially in cloth and wine. It was Henry II.'s acquisition of the Duchy of Aquitaine which led to an important wine trade with Bordeaux.

24. Decline of Manorial System

Many causes contributed to the break-up of the old manorial system, which proceeded rapidly in the course of the fifteenth century. The Black Death caused general disintegration and gave a scarcity value and more mobility to villein and hired labour, although by the Statutes of Labourers an attempt was made to check this process.

The change from villeinage to tenant-farming has already been noted. By the process known as Enclosure, many patches of serfs' land and of "waste" or common land were enclosed by the lords for the profitable business of sheep-farming. The encroachment of royal jurisdiction on local feudal jurisdiction—an encroachment begun by Henry I. and Henry II. and carried still further by Edward I.—caused the old manorial courts to fall more and more into decay. Finally, we have the growth in importance of towns, especially during the fourteenth and fifteenth centuries. It gradually became difficult to keep the town within the manorial orbit, and the rise of urban life was bound to be inimical to the conception of the manor as the sole or essential basis of society.

25. Domesday Book Extracts

Two extracts from the Domesday Book will give some idea of a Norman manor.

"The king holds in demesne Godelminge (Surrey). King Edward held it. Then (there were) twenty-four hides (which) never rendered (Dane)geld The land is for thirty ploughs, and fifty villanes and twenty-nine bordars with nineteen ploughs There are two serfs, and three mills of forty-one shillings and eight pence, and twenty-five acres of meadow Wood for a hundred hogs In the time of King Edward it was worth twenty-five pounds and afterwards twenty pounds. Now thirty pounds by tale, and yet it renders thirty pounds weighed and burnt

"Randulf Flambard holds of this manor a church to which belong three hides. Ulmaer held it of King Edward. They never rendered geld The land is of two ploughs. In demesne there is one; and five villanes and twelve cottars with two ploughs. There are fifteen acres of meadow, and wood for three hogs. The same Randulf holds another church in the same place, which renders twelve shillings by the year. These three hides in the time of King Edward, and now, (were and) are worth four pounds; when he received them, three pounds."

A great railway junction will hardly be recognised in the next description.

"The same Richard (de Vernon) holds Creu. Osmer held it There is one hide rateable to the geld The land is two carucates

There are one radman and one villein and two bordars with one carucate. And there is an acre and a half of meadow. A wood one league long and half a league broad In King Edward's time it was worth ten shillings, now five shillings. (The Earl) found it waste "

The hide was an English unit of area, somewhat indefinite. The Norman carucate represented the amount ploughed by a team in a day (late Latin *carruca*, plough). After the Norman Conquest the two terms roughly represented the same area (about 120 acres), but the hide was used as a unit for taxation (Danegeld) purposes. As the taxable capacity depended on fertility, a hide of rich land would be smaller than the average, and vice versa.

The coinage was depreciated at the Conquest, so that the method of payment had to be specified. Payment by tale took no account either of weight or quality; in payment " weighed and burnt " both were considered.

A bordar was a superior cottar; a radman was a " riding-man " and a freeman.

CHAPTER II

THE GILDS

1. The New Period

It is a difficult task to divide the course of history into periods, so that each epoch shall have a definite characteristic. As a matter of fact, our principle of continuity teaches us that no one epoch can be absolutely marked off from another; and the most we can do is to say that at one time there is a tendency for one feature of economic life to be dominant, and though we can sometimes give approximate dates, yet these have no real definiteness. Large and sudden changes, though apparently definite, will simply represent the workings of ordinary economic forces acting with greatly increased speed. Such an event was the Black Death; the large increase in population complicated existing arrangements and great changes occurred. Hence we may take it as the later limit of our present period.

There is no such sharp division between this period and the preceding one, but we can say that after the middle of the twelfth century the towns became prominent, and dominated the life of the people as the manors had done in Saxon and early Norman times. Their beginnings have been noted; the Roman towns, leaving no trace, may be neglected, but the larger English villages and the beginnings of town life in the Danelaw are more important.

Thus even in these times town and country existed side by side. Again, in later ages agriculture, though not so obvious as manufacture (in the original sense of hand

work), had not yet lost its position of real importance, while the manorial principle as yet persisted. Hence an attempt to divide the periods is hopeless—we can say only that as time went on towns grew more and more important, compared with the country, until they reached a culminating point in the fourteenth century.

2. The Growth of Towns

Tendencies in agriculture have been noted, and so we may lay the study of it on one side, though its real position must be kept in view. The changing element attracts us. We know now how towns grow: sometimes by the attraction of a rich abbey whose inmates had needs to be supplied, or by that of the castle of a baron. Shrines and holy places would have a similar effect (*e.g.* Bury St. Edmunds). The methods of growth would vary. Sometimes a village would spread out from the bridge in all directions through the level country, and a convenient market town would result; near mountain streams growth would take place down the river valley, and a string of villages rather than a central town would result—as in the Calder Valley of Yorkshire or in South Wales to-day.

In a level country the tendency would be for each village to grow. Competitive towns would thus arise, and if one obtained a start in any way, its power would increase as it grew, and it would attract the trade of the surrounding towns. Though a fertile country such as East Anglia was studded with towns, some (*e.g.* Norwich) obtained a commanding position. Here nature opposes no bar to the growth of a large town.

Two neighbouring towns of nearly equal size, with progressive populations (cf. Redruth and Camborne to-day), would be in a stage of intense rivalry. The result was that one crushed the other, or the two joined together in fact but not in theory (cf. Rochester and Chatham to-day); or that they would combine in all essentials, as Cambridge

did (cf. the Staffordshire "five towns" to-day). In mountainous districts, the population being concentrated in a thin line in the valleys, local feeling could not gather round a common centre, unless that dominated the whole valley.

Chester, Shrewsbury, and Hereford grew up because they commanded the routes into such valleys, while Northallerton was placed where the Yorkshire hills close in, narrowing the route to the north. Carlisle commanded the route across the Solway, and Berwick the other Scotch route by the coast plain. York and Exeter crushed their rivals because their position on navigable rivers gave them the command of the produce of great fertile tracts. Winchester and Salisbury, in their narrow valleys, have less clear cause for growth; while London's position has called forth a book to itself. (Hilaire Belloc: *The River of London.*) Wareham, on a harbour not then silted up, is an example of the changes which time brings and of the importance of geographical conditions. Kingston (Hull), thought to be the first English chartered town, was a fine landing place for the Danes. The presence of the ending "ford" (Bradford) explains the origin of many towns, and the lowest bridge point of a river was generally the site of a town (Glasgow). Coming to less general principles, the Roman roads retained some of their importance. Towns grew up where they crossed big rivers (Ferrybridge, Tadcaster), or at the important road junctions.

Yet when all geographical explanations have been considered, the position of towns cannot be fully explained, because the human factors are incalculable. The character of the lord, the nature of the feudal obligations of the master, whether he was an abbot or the king, the manorial laws and customs, the character of the inhabitants, and accidental hindrances or opportunities—all these had their effect. No one would think of putting Halifax in its present position, and yet (later) it grew. We can only say

that, on the whole, geographical advantages helped a town, and in the long run usually formed the chief factor in determining its position.

After the Norman Conquest most towns were found on the south coast, which faced Normandy. The Cinque Ports (Hastings, Sandwich, Dover, Romney, Hythe) were incorporated for defensive purposes by Edward the Confessor. London was very important, while York, Winchester, Norwich, and Lincoln were prominent. The biggest towns probably had a population of about 8,000. Chester and York were partly destroyed by the Conqueror; Wareham, Shrewsbury, etc., also suffered because this king wished to build castles on the best sites. Charters were granted by Henry I., but more by Henry II., under whom Durham, Bristol, etc., received town privileges. There were miscellaneous privileges: Henry I. granted toll-free trade throughout Yorkshire to Beverley and York. The Cinque Ports sent fishing boats to Yarmouth, and thus obtained control of the fair at that place. The relative importance of the towns altered; in 1400 London had 40,000 inhabitants, York and Bristol each 12,000, Plymouth and Coventry each 9,000. Most of these towns developed until the Black Death, and others side by side with them. Norwich, besides being a port, became a weaving centre in the fourteenth century; Scarborough and Hull, on the other hand, were new ports which developed quickly in this period.

3. The Reasons for Growth

The question arises, what was the reason of the growth of towns? The answer is two-fold. The growth of population would give an opportunity of increased social life in larger villages, just as enormous villages exist to-day in Russia, but this, however, would not explain the phenomenon of centralised towns. In such an early town, practically a highly developed manor, most men still

followed agriculture, and villeins were common. The gradual commutation of labour dues which followed on prosperity was the cause of the rise of a more independent community. Thus a town gradually drew away from manorial control. This process was accelerated by further urban developments. First, as bailiffs became more enlightened, and progress steadily, if slowly, took place on the manors, surplus produce would appear, and this gave every opportunity for the growth of communities which produced things other than corn and wool.

Next, the towns were first and foremost trading centres. Accidental exchange in some degree always took place between manor and manor, but the systematisation of trade required a meeting-point. If trade had been a mere interchange of agricultural produce, village middlemen would suffice, but non-agricultural goods were wanted; these could only be produced conveniently, well, and in quantity in a place where the knowledge of the trade was hereditary, where the worker had been in the atmosphere of the craft all his life.

The one essential for successful trade lies in the varying products of different districts; there is little trade between Salisbury or Winchester and Canterbury to-day; there is enormous traffic between Leeds and Manchester. In early times there would have to be a great advantage before trade could be carried on between manor and manor, as there were no systematic middlemen. The differences that did exist between manors were not realised.

Later, certain men made it their business to find out what goods were abundant in a certain place, and what specialities of high quality certain towns offered. This task would be easier in that these specialities would be known all over the country or over Europe (*e.g.* Kendal green, Toledo steel). Those men prospered who were able and cautious, and such traders tended to live together for reasons shown later.

4. The Merchants

Hence a race of merchants grew up, generally freemen, with marked personal characteristics, and their presence in number would give a definite individuality to a large village, converting it into the mediaeval town. Perhaps even from the first, certainly later, the merchants of one town would become acquainted with those of another, and direct trade between cities would occur, the intervening country being unaffected.

Thus the towns began to be centres for the surrounding country and to possess a reputation above that of mere villages; as a result the different parts of the country would be more firmly connected, just as London to-day, by its influence on the large provincial towns, exerts some small effect in every corner of England.

Now we must examine what kept the merchants together as a body, for the keynote of the towns, like that of the manors, was social independence and self-sufficiency and stability. Self-interest was of course the chief motive. Just as to-day a person who hates a large town lives there "because his work is there," so the mediaeval towns would attract the keenest traders. Such persons required material protection, not only of life and property, but as regards enforcement of contracts, and they wanted an opportunity of commercial activity.

These conditions they found in a town protected by a strong lord or by special laws. In mass, banded together, the merchants were far more powerful than singly. They could defend themselves more easily, and commercial business was carried on better, while news was quickly disseminated. Again, it was the custom in many towns that during the continuance of the market the "market-peace" must be observed, and peaceable merchants thus obtained the right of asylum.

The merchants held together also because they formed a distinct class. They would have the pride of "citizens

of no mean city," while their friendships and daily life lay in the town. They had little to do with the other townsmen, and hardly came into contact with the country population. A common religion, again, held them together, all the more in times of ferment when the towns were generally more "advanced" and independent in their views. They were generally men whose habits of life and methods of work were clearly marked off, and this fact would create another bond among them. Perhaps the most important cause of the progress of a town is the fact which must be elaborated later, that it possessed a charter, and thus was governed by its own court and laws; it had certain definite privileges, it possessed independence and freedom, and had a high feeling of civic pride.

5. Early Towns

At first the towns were market towns, often known by the name Chipping,[1] *e.g.* Chipping Sodbury. These to-day present the characteristics of small, dull places, insignificant in proportion to their reputation, showing much activity on market days. Inhabitants there are, but the business is mostly carried on by neighbouring farmers. Something of this sort must have happened in early times, and gradually a definite race of middlemen grew up. The trade was carried on in fixed channels, by definite people, at a definite place.

Such a place, marked by a cross, was called a market, and in early times trade could have developed only by such means; buyer and seller thus knew exactly where to satisfy their needs. As we shall see, attempts were made to confine trade to recognised channels. Many of these towns developed no further, but some prospered.

The city merchant prince and the labourer were sharply contrasted in character as in work, and yet they had a

[1] Connected with O E. *céap*, barter; cf. Cheapside, chapman, and German *kaufen*, to buy.

common origin. We must examine the transformation of the latter into the former. A village which had geographical or other advantages tended to include a larger number of freemen, owing to commutation and attraction of the best of their more mobile element from other places. Freemen would be most likely to make a new departure. Security in such a place was well marked. The men carried on their work as in an ordinary village, but some of their spare time might be spent in bargaining for luxuries or other food products against their own surplus. As a money economy developed, they could sell their excess produce, and either save the money or buy other goods.

Hence there appeared a constant surplus which could be changed into money. Temptation to confiscation by the lord would exist, but a powerful and independent court imposed a check on the latter. As the townsmen were freemen, they could not be so much controlled by a superior as in the case of a serf. Artisans came into being; they furnished the luxuries required, and very rudimentary shops grew where they sold their own goods, each "shop," however, supplying only one class of article.

6. Further Development

As wealth increased the townsmen became dissatisfied with a mere market, and bought off the remaining rights (*i.e.* rents, etc.) of the lord for a fixed sum of money and a fixed annual money rent. The townsmen could now act in a single capacity. When the town obtained its own reeve in the local hundred court and assessed its own taxation to the king without intervention, then it possessed a charter.[1] The town was independent, but responsible to the Crown. Supervision was required, not only for protection of life and property, but also to supervise bargains.

[1] The earliest recorded charter is that granted by William I. to the City of London. Under Henry II., Richard, and John charters to cities and boroughs became numerous.

A charter was very expensive, and so the burgesses naturally wished to confine the advantages to themselves.

At first the chief men in the town and the merchants would be synonymous, but later others wished to trade, and outsiders would often be closely connected with the city. Hence it was required to exclude undesirable "foreigners" from benefit, and to reward influential and friendly outside merchants. Hence grew up the gild or merchant association, the enormous importance of which will be dwelt on later.

No one was allowed to buy or sell except in the open market before witnesses, and very serious penalties were laid down for those who broke this law. No person outside the gild could buy or sell without its permission. This is enough at present to show that as wealth increased each merchant became more powerful, while the combination of traders was supreme. A higher standard of living, together with a sense of power and responsibility, developed a merchant type, fairly constant over Western Europe, and continual association defined it more clearly. This is another step in the development of present-day classes; the merchant class is less prominent to-day, but it left its mark in past life

The town would now stand out from the country, and as similarities between the two disappeared the cities developed a common feeling. There would no longer be a to and fro movement of freemen between town and country. It must be noted that the manorial system held undisputed sway in the country districts during the period that the towns developed. The rich merchant scorned to dig; habits of mind rendered him averse from the soil, while he needed all his money for his stock of goods. His cautiousness developed as it was made clear that large sums of money depended on his judgment, and this again reacted favourably on his intelligence, while country virtues were lost. Hence arose misunderstanding between country

and town which in later times was sometimes a cause of rivalry. At the least, the difference in character intensified the social independence of the towns as contrasted with the country. Again, the merchants could apply pressure to the manors, determining, within limits, what prices should be paid for the agricultural products; exchange was one-sided, competition was fettered, and the interests of the towns were furthered by the action of the merchants.

7. Charters and their Importance

Before proceeding, we must note that the granting of a charter meant an enormous start which could overcome great geographical disadvantages. Hence this meant a sudden jump in the history of the town, with great advantage in competition with mere market towns. Again, the town being in an advantageous position, further progress was easier, so that great efforts were made to obtain this privilege; when obtained, the security and independent power were worth almost any cost. As a few rich merchants developed in a big town, these obtained power, and sometimes the town obtained the privilege of incorporation, after which it was governed by a small oligarchy. Then it could fight even against the king himself, who was always jealous of the towns, while between his sheriff and the townsmen great struggles often occurred.

8. Specialisation of Traders

We must now consider the further growth, in the last part of our period. The first merchants were probably men who had some luxury to offer, say specially good cloth, of which they kept a store. Thus they would sell or exchange their own produce. In time this would be insufficient, or men whose abilities lay in trading would give up some of their work and would supplement their own stock by that of others. At first many goods were

made by the workman or " craftsman " to order, to suit the purchaser, and this always happened in regard to certain articles (*e.g.* tailoring to-day). This trade tended to be local, and was carried on at the house of the craftsman, so that here he and the merchant were the same person.

Other goods, however, could be made in quantity, *e.g.* coarse cloth, or finer cloth of standard quality, and these tended to be bought up by one more enterprising or richer craftsman. As he increased his sales, he had to get more goods from his fellows. Soon he obtained control of the goods, and other craftsmen could only sell through him. If he possessed ability his wealth increased, and he joined the gild when this institution originated Thus some craftsmen slowly developed into merchants.

Then the power of this trader became greater, and his rivals were not allowed to sell. Perhaps now he gave all his attention to trade, and obtained all his goods from craftsmen. He had then reached the status of merchant. Socially and as regards wealth, power, and position he was superior to the craftsman. The final state in an important town was that a small body of rich merchants controlled all the trade of the town in goods which could be " graded." (*i.e.* sold by sample), while there was a separation between merchants and the craftsmen depending on them. Goods for local consumption or made to order would still be in the hands of the craftsman in his " shop " (cp. hand-made wool in Ireland to-day).

In the fourteenth century traders multiplied, the work of merchants became more varied, craftsmen in each craft increased in numbers, while divisions were made in single trades (*e.g.* spinning and weaving). The increase in number and wealth of the craftsmen, and also perhaps the tyranny of the merchants, caused the former to combine later in new " craft gilds " in order to utilise different conditions. In our period the merchant gilds advanced and afterwards declined, their place then being taken by

the craft gilds. Then the town became quite separate from the country, while merchants and craftsmen in their connection with one another formed an interlocking stable system which made real nobility of labour impossible. What happened to the villeins and cottars drawn in will be seen later; we may now note that membership of a gild (craft or merchant) for a year and a day made a free man of a villein.

9. The Grading of Commodities

Two species of commodities have been hinted at: those made singly, and those "gradable" commodities which can be produced on a large scale. The former kind tended to remain in the hands of separate craftsmen, the latter to be controlled by merchants. Even to-day a housewife is determined to have her cake from a certain shop, caring little where her flour comes from. Hence when demand increased for tailors, more tailors worked separately. Cloth would, however, be controlled, except in the case of certain specialities. As such products grew, however, new trades appeared, for dyeing, weaving, etc., formed separate processes, all converging on the one article.

This convergent tendency may be contrasted with a divergent one in trades where one manufacture is a basis of many others. Thus the leather trade diverges into boot-making, saddlery, and so on. Sometimes, very rarely in those early times, one business (as apart from a merchant) could control all these diverging or converging branches, and then the great fortunes were made, *e.g.* by the usurers.

10. Relation to the Lord

It might be asked how it was that the lords and the king were both willing to give up their separate rents, etc., for a mere sum of money, when an indefinite payment would be more valuable. The answer is that at this time the king and most of the lords were in want of ready money.

Luxury developed rapidly, so much so that sumptuary laws existed in the time of Edward III. Money was therefore required for display and hospitality. It was wanted too at a particular time, and hence the lords were obliged to part with their powers, the more readily as a rich merchant race was willing to make any sacrifice to obtain freedom and independence. The other great cause was warfare; money was necessary to pay the soldiers, who were often mercenaries, and the greatest wars of all—the Crusades—occurred in this period. Norwich obtained its charter by helping to pay the ransom of Richard I.

As it would be a matter of accident whether a certain lord was in pecuniary difficulties, it will be seen that the towns did not progress together, as a whole, but at any one time were at different stages of development. One town may have had a long existence, while another, though more advantageously situated, might be struggling to get its charter. On the whole, the course of development of those towns which did prosper was more or less the same, though details would never be so.

The towns threw off their shackles gradually, freedom being bought in steps; the nature of the lord's rights differed from manor to manor, while the lords themselves ranged from the owner of a single manor to the king, and included church dignitaries. To the king and the greater barons the changes were not displeasing, as they brought in collective responsibility so that the king could deal directly with the town. These changes were not confined to England, but were part of a great increase of town influence all over Europe.

The privileges, being valuable and costly, were held tenaciously. The burgesses had sometimes to fight the king, who was jealous of their growing influence; though the towns held a minority of the population they represented the country's intellect and power. They had to fight against encroachment by lord or "outsider," and a

self-centred policy was necessitated; again, they were not willing to incur disgrace by the ill actions of fellow burgesses, especially considering that responsibility was collective: unsatisfactory members were excluded.

11. The Merchant Gild

The whole of the life of the town in the twelfth and thirteenth centuries focused on the merchant gild. The gild members were not synonymous with the citizens. In some cases the two bodies were nearly identical; but as a rule only selected citizens could join. As the gild was mainly chosen from those privileged to manage the town business, there was always a close connection between the gild members and the town government.

The object of the gilds was, first and foremost, the regulation of trade. As we noted that a merchant in early times was a mere craftsman, so we noticed that there was no hard and fast line between these employments. Hence at first, *e.g.* at Shrewsbury, craftsmen would be admitted, and even in later times we have positive evidence from records that they were found in the merchant gilds. Yet as merchants became more powerful the gilds, on the whole, would tend to include only them. At Kendal and Ipswich the merchant gild later specialised in different directions, directly changing into a number of craft gilds.

In another sense the gild, though of the town and inseparable from it, yet was distinguished in that it had no civil jurisdiction. The gild members, as such, took no part in the government of the town, though they might be the actual rulers; but they had a gild court. This did not manage even commercial business if of an ordinary kind, that being left to the ordinary courts, but usually considered cases affecting gild members themselves. It would be much more satisfactory to settle such cases quietly than to expose quarrels or problems to outside interference.

This leads us to the most important characteristic of the

gild, *i.e.* its solidarity. It was stable, and a minority, while having a voice in deliberations, at least before the numbers became unwieldy, yet had to work with the rest

THE GUILD HALL, LONDON.

as regards the outside world. The only chance of this "class" was to act together and sink differences.

Sometimes the gildsmen tyrannised, but their actions were called forth by feelings of self-preservation. The aim was two-fold: the members by combination and

agreement wished to keep the wheels of trade oiled so that business could prosper; again, more selfishly, they wished to keep all gain to themselves and to exclude outside rivals, all making sacrifices in order to present a united front. This again was not altogether bad, as the rules made were on the whole just, and rivals who did not obey them would obtain an unfair advantage.

12. The Relation of the Guild to the Craftsman

The merchant gilds again were utterly unlike present-day trusts and combines in that they were not dominated by money. In those days bullion was a rarity, and large fortunes were seldom made. Merchants (outside London) had neither the opportunity to make accumulations nor the means or inducement to save. Hence the merchants would live, so to speak, from hand to mouth like artisans, and would have to depend on continuous work.

As a result there was no store of wealth out of which a merchant could make huge purchases, to sell them again after some definite time. Merchants could not own large warehouses, but obtained their cloth, probably piece by piece, as it was ordered by casual customers. There was no need of capital under these circumstances.

While the craftsmen depended on the merchants, they could yet harass the latter by refusing to supply goods at any particular time, so that there was at this time no lower class under the control of capitalists, with the latter taking the risk of large loss of capital while making exceptional gains when fortunate. Craftsman and merchant were on fairly equal terms; the former could hold his own in a quarrel, because the merchant has as little staying power as the craftsman himself. Where the question affected the merchants as a class, then they would stand together in a band and be supreme, till the days came when the craftsmen formed their own gild. On the whole, however, there was no exploitation of labour.

13. The Method of Procedure

As to the method of procedure, the main rule was that no one was to buy or sell in the town in which the merchant gilds existed except a member of that gild. This was the ideal, but in practice permission was often given to outsiders to trade, under stringent regulations. Legal permission had to be obtained for the formation of a gild, and the privilege was as much prized as that of citizenship. The gild was not always powerful enough to enforce its rules; in that case it had to content itself with supervision, stipulating that the conditions of trade of outsiders should be at least as onerous as those binding its own members. In Shrewsbury non-members could obtain privileges by payment of an annual rent.

The notion of customary prices and fair dealing impressed men's minds in those days so that a sudden unexpected gain was held to be immoral, or at least suspect. Thus if any member had made a very good bargain it was held that he should not take all the advantage; his fellows claimed their part. A successful purchase had to be thrown open to members of the gild willing to buy. The basis of this was partly the principle of solidarity, partly jealousy of another's success, and partly self-acquisitiveness.

To this end all bargains had to be concluded in open market before witnesses. This measure was necessary under those conditions, to prevent illegal trade by outsiders, to see that no single member obtained unfair advantages, and to make sure that the gild rules were observed. It was to the interest of an unscrupulous member to take all advantage possible of gild protection while traversing the laws when opportunity served. So important was this held that any person who was found to be in possession of goods obtained secretly would have to defend himself against a charge of theft.

This solidarity had a better side, in that sacrifice for an unfortunate gild member was held to be a duty. A poor

member had a right to the help of the gild, as also had the widow and children of a deceased merchant. If a member was disabled or suddenly lost his wealth, the gild again stepped in. Further, if a member was imprisoned, or accused in the ordinary courts, the gild would often help him. Justice was then often arbitrary, so that it was necessary for the gild to oppose its strength as a body against unjust and oppressive accusations. Often, indeed, the wealth of the merchants would make them a tempting prey.

14. Privileges of Gild Membership

Membership of the gild conferred a status, so that in trade with other towns a member occupied a privileged position; he was known and trusted by those personally strangers to him, and in addition was often excused certain tolls. This was all the more the case because the solidarity of the gild extended to debts to and from the gild; a stranger, if deceived by a member, could recover his loss from the gild affected.

Membership thus valuable had to be paid for. It descended, however, from father to eldest son; but citizens of the town could join, if approved, after a money payment. As members shared bargains, merchants in other towns would often find it to their advantage to join a gild in a town with which they traded, but such had to pay a higher fee.

Though London and the Cinque Ports must long before have possessed a gild or its equivalent, the first signs of merchant gilds in England appear about 1100 A.D. On the Continent they had arisen much earlier, but there is no reason to suppose that the English gilds were copied from them. Long before the Conquest religious gilds existed, which were unions for religious and charitable purposes. Frith gilds were also common; these were bodies of men banded together in troublous times to help

to keep the peace. Possibly mercantile affairs were partly controlled by them, especially in London, Canterbury, and Winchester. In the case of the newly chartered towns under Henry I., however, the merchant gild, prominently mentioned in the charter, was a new creation, though sometimes, *e.g.* at Leicester, the gild existed before the town was fully chartered.

It is probable that the merchant gilds, as the need for them arose, developed from the former gilds, and that they combined in themselves the characteristics of the earlier combinations. Some Continental influence there was, as a Norman town would have its customs imported as a whole into new English market towns. Hence the gild laws, when developed, tended to occur in types, each group branching from a single parent.

15. The Craft Gilds

As trade progressed, becoming more specialised, the gilds tending to include merchants only, power in time was in the hands of a few rich traders; and yet business increased so much that minute control of all branches of trade became impossible. Hence craftsmen had to combine, partly to defend their own interests, and partly because each separate trade required internal control, just like the old trading communities; and so about a century after the merchants' gilds (in the twelfth century) craft gilds, built on the plan of the merchant gilds, made their appearance in England. At once we are confronted by a difficulty. On the Continent there is ample evidence of conflict between the two kinds of gilds existing in a town; *a priori* we might expect it.

There, as the numbers of craftsmen increased by natural increase of population and influx of poorer villeins and cottars, and as they lost all trading power, they formed a new class. This democracy in the earlier stage was controlled by the merchant gild. As the craftsmen grew in

numbers they combined, especially as they could influence the merchants' trade, and struggles occurred. These ended in the final victory of the craftsmen.

In England there is a similar change in the centre of power, but there is no evidence of bad feeling between the gilds. What struggles took place were against the town authority. About the time of Edward I. craftsmen's combinations were no longer suppressed and persecuted as "adulterine" (unlawful) gilds, but their promotion was encouraged by the king to balance the power of the towns. Where there was a considerable foreign element (*e.g.* the Flemings), or a large subject town population attracted from the country, then struggles did take place.

The suggested explanation of the apparent harmony is that, as the merchants prospered, the merchant gild and town government became synonymous, so that the struggles of the craft gilds against the towns really contained an anti-mercantile element, small, however, because there was no large capitalistic class. The merchants were rich and powerful, and naturally controlled the town government.

Weaving was carried on from early times in some measure; again, cloth is a "gradable" commodity in wide demand. Hence it was early, in the original sense of the word, the most important manufacture, and was that in which craft gilds first appeared. We have direct evidence for London, Liverpool, and Oxford in 1130, and near the end of the century adulterine gilds were common in London. Weavers' gilds were found in York and Winchester under Henry II.

16. Comparison of Craft Gilds with Merchant Gilds

At first craft gilds were contrasted in methods with the merchant gilds. Production was the thing supervised; of course, with the ideas of such times, control was necessary, and methods of supervision would be roughly similar in different towns. What happened to the goods when made

was left to the merchant gilds, when they persisted. Next, the craft gilds were more democratic and probably larger than the merchant gilds at that time. Their aim was to guarantee that goods sold by a member should be satisfactory to the purchaser, so that the gild served as a kind of hall mark. Quality was regulated—any goods not satisfactory could not be sold at the ordinary price. Method of production was supervised; later, for example, night labour was forbidden, as leading to bad work, and no encouragement was given to new methods, each worker being obliged to fall in with the general scheme. The craft gilds had many charitable activities; provision was made for sick, infirm and aged members, for craftsmen who had lost their tools, and for the funeral expenses of those whose families were too poor to pay them. As was natural in the Middle Ages, they had their religious aspect; and they presented dramatic entertainments.

It is extremely important that the facts should be grasped that goods were not produced at the lowest possible cost (as to-day) with little care as to quality, and with the object of pushing the sale, by means of enterprising commercial travellers, into the most uncivilised parts of little known countries, but were made to supply a fairly definite demand for a well-defined product. As long as population was nearly stationary, old methods could suffice indefinitely, as they had stood the test of time, though they were not the best conceivable. The control had a community in view, subject to slow progress only.

Price was also controlled. This question will be dealt with more fully later, but it may now be noted that price tends to be controlled to-day by the interplay of demand and supply. Then, however, it was held immoral to take advantage of another's wants to alter price, so that a fair price which pressed hardly on no one was the aim.

The materials used and the skill of the members were subject to supervision, and the whole intention may be

summed up as "honest work at a reasonable price" (Cunningham).

Like their merchant representatives these gilds suppressed all practices subversive of the morality of the day, and, like them, "forestalling," "engrossing," and "regrating" (then synonymous terms for buying wholesale, privately, to sell at a higher price) were strongly condemned.

As regards the system as a whole, while no artisans in the present sense yet existed, the craft gilds marked the progress from the family to the artisan system. The craft gild was a stage in the progress of industry, and many of its characteristics lasted at least until the middle of the eighteenth century.

17. The Effect of Progress on the Gilds

To proceed further, we may note that, as the rich merchants developed from craftsmen, so the first members of the craft gilds would learn their trade and be in a position to understand the slow development of the industry. The skill and peculiar trade knowledge would be handed down from father to son, while the gilds would contain the best of the craftsmen.

Population slowly grew, so that after a long time a large increase in production would take place, helped by the growth of comfort and luxury. Thus more craftsmen were needed, and the new generation could not exactly fill the places as before, so that some instability appeared. A little natural growth of population would occur within the towns, but, more important, the poorer villeins and the cottars would be attracted from the land by the higher wages, especially as money payments were becoming commoner on the land and freedom of movement was restricted there.

Hence the original gilds had either to increase in size, retaining their structure, or classes must form within the bigger combination. The latter occurred, and the

democratic structure began to disappear. Apprentices (lower in position in the gild, but not necessarily socially inferior) provided a means of increase, while the number of original craftsmen was unaltered. They became fully developed craftsmen in time.

Soon, however, there was no superior place for the apprentices in the gild even on waiting, so that they left the town, and came back to take their place after their wanderings. Thus the original craftsmen, through their descendants, represented an aristocracy of labour, while the new class of journeymen was the beginning of the modern proletariat. In time (after our present period) the journeymen enormously increased, the gilds broke up, and now merely persist as survivals in rare cases.

This is a similar state of affairs to that on the Continent, where a merchant aristocracy developed superior to the craftsmen, but there is real evidence for the craft gild in England. However, we must note that in the early part of our period settlement in the town was essential for a gild member, apprentices slowly coming into being; before the Black Death journeymen had also appeared. The whole system was most efficient at this later date.

The craft gilds tended to represent the best of the trade. The older craftsmen would wish to keep to themselves, and if there were any question of exclusion the weakest would have to suffer, and could produce either under difficulties or not at all. This exclusiveness existed also against other towns; there was none of that free communication found on the Continent. As time went on exclusiveness even deepened, as the growth of industry meant an increase of specialisation; so that just as a craftsman had in later times to forswear his craft before he could join a merchant gild, so a craftsman had not only to choose his trade, but also a particular section of it; and prohibitions were often carried to absurd lengths. The different members of a craft generally lived in the

same quarter, and old street names have often been preserved.

The student is often tempted to regard the craft gilds as forerunners of the modern trade unions, but there are vital differences to be noted. The gilds knew no sharp division between capital and labour, between employer and employee. It is significant that the term "master" meant one who had mastered his craft rather than one who had "men" in his employ. A "masterpiece" was the piece of work that a craftsman had to do in order to attain this grade. The apprentice had an infinitely greater chance of becoming a master than the modern wage-earner has of rising into the employer or manager class.

18. Other Economic Activities

The ordinary work of the gilds did not quite exhaust economic activity. The London Steelyard shows the influence of Continental merchants, while much trade was carried on at fairs, notably at Winchester and Stourbridge (Cambridge). These were similar to markets in their definite times and sites, but were held only once a year or so, and were known throughout the country. Here goods not to be commonly obtained were sold, and at fair time the scene resembled a large town with streets devoted to certain products. Fairs have persisted till the present, though their importance has almost vanished; in Ireland they still hold a place in the life of the people. Towards the end of this period production began to grow in the villages, but gilds did not exist there.

19. Central Control

As regards general economic history, the time of the Edwards must be noted. Then the Crown began to interfere with trade and production, which before was

controlled only by local means. As central power grew, and some uniformity in the towns existed as a consequence of better communications, it was found possible to substitute central action for local. As the central body simply did what local authorities had before done, there was no hardship; and as the power was further away, there was perhaps even an increase of independence.

Edward III. began to look away from England, and commerce became international. English industries were aided by prohibition of imported goods and exported raw material (chiefly wool). Flemish weavers were attracted over, and Englishmen had to act as "hosts" for them. Travellers were protected. The people were obliged to wear English cloth, and an official (aulnager) was appointed to supervise the cloth exposed for sale. Staple towns, through which trade must pass had been instituted, *e.g.* Edward I. made Antwerp the wool staple.

Growing luxury induced Edward III. to pass sumptuary laws regulating the amount spent on adornment and other needless expenses. The currency was improved, while weights and measures were standardised. Edward's close association with Flanders and Gascony led to increased trade with these countries, though the introduction of Flemings led to bitter feelings against aliens; these held their privileges direct from the King, as the Jews had done before their expulsion under Edward I.

All these things conspired to make the towns wealthy, but the prosperity was broken by the Hundred Years' War and the Black Death.

CHAPTER III

THE BLACK DEATH AND ITS CONSEQUENCES (1348-1600)

1. The Black Death

In the year 1348 England was, on the whole, a prosperous country, with a healthy countryside and progressive towns.

Then arrived the Great Plague, which seems to have swept away at least half of the population. Famines had before thinned the country population; as a result, the demands for labourers increased so that their condition had improved. Now all was disaster.

There is no doubt of the great extent of the calamity. The court rolls show us that the above estimate at least holds for particular villages, while some were depopulated. The records of institution of clergy to benefices show that half the parish priests were victims. Whether judged as a whole or in particular cases, and making all allowance for exaggeration, the estimate must be held to be too low rather than the contrary.

2. The Economic Effects of the Black Death: Supply and Demand

Economically, the immediate results may better be imagined than described, and we had best pass on to the secondary effects. The labouring population immensely decreased in numbers, and, selfishly or not, they made the most of their position. Demand for their labour increased while their numbers decreased, so that they were in a strategic position and could ask almost any wages they wished. The land practically went out of cultivation for want of men to work it; landowners and free tenants had to pay the most exorbitant prices for labour.

Those villeins who had to pay labour dues tried to escape to other parts where they were welcomed with open arms and received good wages, while it was almost impossible to find and bring them back. Naturally men refused to work at the old wages, demanding and obtaining much more. As food did not rise in price in proportion, the labourers had, relatively speaking, a happy time.

It will be useful to examine the reasons which led to this extraordinary increase of prosperity on the part of one section of the community. The explanation can be given (a surface explanation it is true, but a sound one) by the economic theory known as " demand and supply." If any goods at the present day are produced in excess, the sellers are competing against each other in eagerness to sell their goods, while the buyers may pick and choose. Hence the buyer, knowing that he is not bound to buy from one person, can refuse an unsatisfactory offer, while the seller does not wish to lose a sale. Accordingly prices fall below the ordinary level.

If the goods are scarce, the sellers will not sell at the ordinary prices, knowing that they may pick and choose among their customers; a buyer will be afraid to lose an offer for fear he may not get another chance. Hence prices rise above the ordinary level. This may be seen in a port when the ship bringing in fruit has not arrived, its dearness contrasting with the cheapness in season when an abundant supply is present.

This theory has been upheld as always true under all circumstances; conditions, however, must be observed. There must be competition between the sellers and between the buyers, and the state of the market must be known. There must be no bar, either legal or customary, to the movement of prices, and self-interest must be the motive power governing both buyers and sellers. Then the theory is true for all commodities. The influence of scarcity on prices was very marked 1914-1919.

At present, for these mediaeval times, we are chiefly concerned with two—labour and money. We expect if the labouring population suddenly increases that " there will be two men for every post " and that wages will fall, as men will take a low wage rather than be out of work, and that wages will rise if the population suddenly decreases.

3. Application to Labour

This implies the existence of two classes in the community, labourers and employers; while one gains the other will probably lose. The employer wishes to see " cheap labour " overflowing the market—he does not like a scarcity. Thus gain to the labourer meant loss to the landowner. It implies that the landowners were keenly competing against each other for the work of the labourers, and that labourers and landowners knew accurately the state of affairs. It means that each side looked only to its own advantage. All these conditions were observed. The landowners combined in some measure (in Parliament and elsewhere) instead of competing, but the temptation to obtain labour secretly was generally too great. So far the labourers held the field, and the forces were tremendously against the landowners.

One obstacle, however, there was to the working of economic forces: prices were settled by custom and the ideal was a fair price—the price of labour was no exception. The effect of custom in these times was normally so great as to overbear the workings of self-interest and competition; the laws of the gilds and of the land, and the feeling of the people were against the abnormal gain.

Hence all the weight of custom and law was thrown against the peasants in their effort to change the economic conditions. It says much for the character of the Great Plague that the labourers obtained their increased wages and in many cases escaped from villeinage.

4. Application to Money

As regards money, if coin is abundant in the country each person will tend to possess more of it. Although a man wants a more or less fixed amount of food, the amount of money he requires is indefinite, because it is used only as a medium of exchange. Hence he will hold it more cheaply and will give more of it for a fixed amount of food, or, in other words, prices will rise. Edward III. reduced the amount of metal in the coins, while preserving their name; these coins became commoner, and prices rose.

Corn was another example of this law. Of all things this was the product whose price it was advisable to keep constant. Yet when famines arose the price of corn increased, while food was cheaper in times of abundance.

Perfect competition among labourers implies that these are free to move about as they wished. This was not the case in regard to the villeins, who were obliged to remain on the estate of their lord. This fact, together with the existence of customary prices, shows us that modern notions of individualism and free play of demand and supply had little bearing at this time. All the weight of society, as a rule, was thrown against change.

5. The Theories of Nicolas Oresme

Yet the foundations of a true economic theory had been laid. Oresme (1320-1382), a French scholar, showed genius in analysing the economic maladies of the time. He saw clearly that money, though it should be under the control of the sovereign, was yet a social possession. He strongly disapproved of the practices of those sovereigns who looked on coinage as a convenient method of self-aggrandisement, while the action of those who not only made coins of less value but also debased them was still more culpable.

He saw that money was not an end in itself, but a means of exchange, so that those who made profit out of the

currency were to him parasites; the riches of usurers were an artificial wealth. He saw that, although debasement and similar crimes had no immediate bad effect, they drove out the good money into other lands, a discovery which led later to the formulation of the famous Gresham's Law.

6. Usury

This leads us to the vexed question of usury, *i.e.* payment for a loan of money. The Christian idea of the time forbade lending at interest; Aquinas (1227-1274), a famous theologian, had represented the attitude of the Church. The Jews were allowed by their religion to take interest from Gentiles; and their exclusion, by rigorous restrictions, from other avenues to prosperity helped to make them the natural moneylenders of the early Middle Ages. The customs and general ideas of the people, as usual, were reflected. In 1364 Edward III. allowed the city of London to pass an ordinance against usury, and in 1390 the Mayor issued a strong prohibition. In 1487 an Act against usury was passed under the influence of the financier Morton. The Jews were under the personal protection of the king, who defended them against their enemies on condition of receiving financial help when required; though the king himself (*e.g.* Henry III.) was not always above plundering them.

As usury was not legal, a high rate of interest was exacted by the usurers to cover risk from the law, so that it fell into greater disrepute than ever. We must not judge by twentieth-century standards. Capital was then not required for business, money was limited in quantity, and the place of joint-stock companies was taken by friendly partnerships. Thus money was not needed, as to-day, in order that gigantic concerns might earn a large profit, sufficient to pay large interest to the lenders. It was considered to be barren, and the lender was thought to have no claim if his loan was certain to be repaid at the

allotted time. Money was then required for a temporary emergency: perhaps some landowner had been approached for a heavy payment to the king when all his wealth was locked up in the future labour of his villeins, or perhaps some merchant had sustained a sudden loss which could be wiped out only by future transactions.

In these cases money was wanted at once, not to buy raw material so that it might be worked up at a profit, but to meet certain charges, and the money so borrowed was not productive in the present-day sense. Hence it was held that a lender had no right to interest. If the loan inconvenienced the creditor, or if some risk were incurred, then some payment might be demanded, but if the contrary were the case, it was argued that the money would otherwise have lain in the coffers of the lenders untouched; that where there was adequate security for repayment and the money was repaid at the fixed time no payment could be expected.

Gradually the pressure of economic forces had their way, and legal fictions crept in, such as that the borrower had (intentionally) delayed repayment, to the consequent loss of the lender. As the wealth of the country increased and money payments became commoner, the position gradually altered, but by the fourteenth century the trade had passed from the hands of Jews and Lombards into those of Englishmen. Even then credit was not a recognised and legitimate method of increasing resources and improving business opportunities, or a means of placing capital in the hands most fitted for it, but a disguised usury.

7. The King's Proclamation and the Statute of Labourers

Returning to the peasants, we see that because little manual labour was required for corn-growing, land being also abundant, corn would not rise in price as quickly as most commodities. Those goods became dear which required most manual labour, *e.g.* craftsmen's wares, labour

itself being dearest of all. Here, again, the upper classes would be hardly hit. Hence the net result of the Plague, after events had returned to their normal course, was that though the wealth of the country had diminished as a whole the position of the surviving labourers had improved at the expense of their lords. As the craftsmen could always return to the country under advantageous conditions, their position also improved.

This state of things was not approved by the authorities. The king issued a proclamation, as Parliament could not sit during those troubled times (1349), commanding the labourers to return to their former masters, to work for their old wages. While each lord was to have the preference as regards his own men he had to lend out the excess labourers if he had more than his fair share, so that no land should be entirely dropped out of cultivation. No contract was to be broken, and the period agreed on had to be fully worked out.

KING'S SEALS FOR LABOURERS' PASSES (FOR SERFS).
These were used under the Statute of Cambridge, 1388, which forbade the serfs to leave their districts.

The times had bred a spirit of idleness; beggars, no longer held by the old ties, began to roam; hence the crusade against vagrancy commenced. These measures were fully in accordance with the ideas of the upper classes,

who favoured a return to the *status quo*. It was held by them to be unreasonable that men should take advantage of their position to improve their state. Hence self-interest and righteous anger worked in the same direction.

The lower classes saw a chance of escaping from their former oppressed state—and took it. Neither side should be blamed too harshly. Parliament naturally, being composed of landlords and merchants, lost no time in confirming the proclamation by statute. These also tried to suppress the efforts of craftsmen to obtain a higher reward, but it must be put to their credit that they tried to regulate the price of corn, thus again showing their conservatism and belief in a " just price."

All efforts were useless: individual landowners insisted on having men at any price, and shielded fugitives who came to work for them.

The employers as a class became desperate, and far stronger measures were passed (*e.g.* Statute of Labourers, 1360), when hot irons, branding, and outlawry were the repressive weapons used. Those towns which sheltered fugitives were heavily fined. Still, wages did not sink to their old level.

It was short-lived prosperity. The Hundred Years' War produced the usual economic effects, and the brilliant Continental victories were paid for by the life-blood of the people; the later Wars of the Roses had a similar though less pronounced result. But most important of all, the people found what has been forgotten since and is forgotten to-day—that the prosperity of any section, if occurring at the expense of the rest of the community, is built on a foundation of sand; it is ready to disappear at the slightest shock.

The blow dealt at the nation as a whole and at the landlords in particular produced economic effects which reacted most seriously on the life of the common people; the landowners had the last word. We may confine

ourselves, for the present, to agriculture. Briefly we may mention as disturbing factors, money changes, disenfranchisement of villeins, enclosures, sheep-farming, dissolution of monasteries, the debasement and the increase in the amount of bullion in the country.

The first factor was a minor question, but was an element in the Peasants' Revolt of 1381. This revolt was caused partly by disfranchisement and other tyranny, and partly by grievances against the new methods of the landlords. Though the revolt was put down the position of the labourers afterwards improved. The amount of silver in the pound (the money unit) was lessened, so that as before explained prices, including that of corn, rose, while the price of labour tended to remain constant because it was a customary value. More important is the break-up of the manorial system. As we saw, it was an interlocking stable organisation which could weather severe storms, but once disintegration had proceeded to any extent a return to the *status quo* was almost impossible. The very completeness and balance rendered reconstruction difficult.

The shock of the Great Plague was tremendous, and other dislocations, *e.g.* wars, followed. The whole system of apportionment was thrown into confusion, as was the enforcement of labour by the bailiffs. Hence the lord wished to be rid of his difficulties. Even if much labour was owing and it had not been commuted, enforcement was difficult, and additional labour was necessary. Thus the lord generally took the simplest way out and gave the whole business into the hands of his bailiff or of a trustworthy tenant.

8. Bailiff Management

Such a bailiff would have no underling to pay for management; he would have a direct interest in the land as it was practically his own, for the lord would not wish to displace him if satisfactory; hence the bailiff could and

did pay a reasonable rent. Again, not only land but stock was in the market, and so the stock and land lease system, in which the landlord provided the animals and fixed buildings, became more important; it is a feature of English agriculture to-day.

Here the Black Death simply accelerated a change which had already been going on slowly; but few alterations were made till the landlords were obliged to take steps of some kind; they were forced out of their lethargy.

These bailiffs or other tenants would be picked men, and afterwards they soon prospered so well that they bought the land for themselves. Hence on the demesne land was reared the class of yeomen or free independent cultivators who in after times became the backbone of England's prosperity. Often, too, the lords took their lands out of the common field system, and these followed the same course.

9. Commutation

Again, in such cases commutation was quickened. Villeinage was still very common, but now the tenant wished to pick and choose his workmen, not to have the old labour dues forced on him; he would rather pay a fair price for a good article. The villein, again, in a strategic position could levy blackmail, and the lord must either agree to cummutation or perhaps lose his labourer altogether.

The great value of labour dues was a cause of that legal struggle between lord and villein which took place in those districts where the lords wished to keep their villeins; and later, when villeinage in name had nearly disappeared, Parliament continued the process of limiting the freedom of the enfranchised villeins by legal means. Now a villein had to fight practically for his life, and his fate probably depended on some legal quibble as to whether his ancestors were obliged to take orders from a bailiff in regard to details of labour dues.

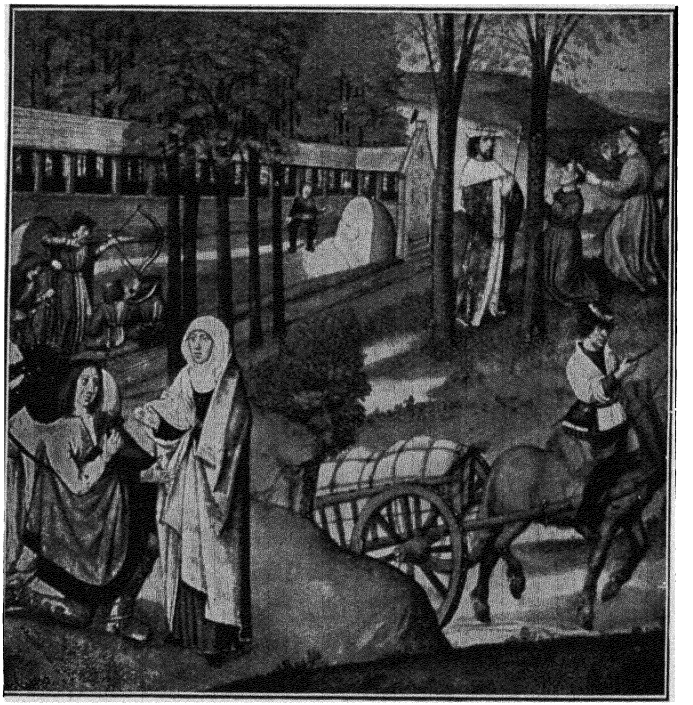
Further, the lawyers were against the villeins, and if a lord chose to push his advantage, no villein who could not absolutely prove his enfranchisement would escape. The economic basis of this will be seen to be the greatly increased money value of such services. Hence the tendency was probably on the whole towards enforcement of the principle of serfdom, but the action in the opposite direction must be noted. As time passed the latter force became stronger, villeinage died out, and by the time of Elizabeth was no more important than slavery in 1066.

10. Extending Trade

And now comes the essential change. The manor had been self-sufficing because trade was limited. Now the growing towns and exigencies of foreign trade required raw material, and in particular that product of supreme importance in the history of English farming, *i.e.* wool. Hence the villages looked beyond their boundaries to the towns and to foreign countries, and the intermediary was the market town. As a result the farmer began to produce a commodity the destination of which he did not fully know, and the price of which he could not prophesy. There was no fear of a glut, as he found by experience that the merchants were willing to take all the wool he could produce.

Thus extension of land and the use of more energetic methods obtained their due reward, as production could increase in quantity, especially for a single farmer, without a lowering of price. Corn was more sensitive; the needs of the population were slight and the foreign demand was small, so that increased production would mean extended supply, and a consequent fall in price per bushel. Hence outside influence decreed that wool should be the product of the farm in preference to corn, and production begun to be carried on with the market in view, so much so that measures were taken later (Edward IV.) to protect our corn-growing.

These various changes were not sudden, and it was not for a century after the Black Death that any decided effect adverse to the labourers was produced. Population was scanty, land was abundant, and labour was scarce; hence



MERCHANT WITH CART-LOAD OF MERCHANDISE
From British Museum MS. Reg. 19*c*. VIII., 1496.

the value of wool, which increased as demand for it increased, made it profitable to use up that part of the land which was not now required for corn-growing purposes by the thinned population.

Again, sheep-rearing requires far less labour than corn-growing, so that the change simply represented an alteration due to a decreased labour supply; it was only later that labour was positively displaced. The farmer was often obliged to keep sheep, as nothing else would pay.

11. Social Changes

Socially, change was accelerated after the Black Death and not altogether for the better. The manor had formed an extremely large family, where each member, however humble was his position, could feel that he had something to which to cling. As labourers moved from place to place, they lost this hold on the place of their birth, and they became, not men with a definite place in a complex system, but mere units, here to-day and gone to-morrow, in such a sense that individuality tended to be lost.

On the whole stability had been the key-note of the life of the people, and mobility of labour as understood to-day was confined to the vagrants; but now began that process which has made the English proletarian, and far more so his Continental brother, one of a mass of workers in whom an employer takes no personal interest. The motive force in this direction was the wages system, and here we see the beginnings of the dependence on capital, impersonal and all-powerful, rather than on a lord, tyrannous perhaps but human.

12. Enclosures

This huge undifferentiated mass of labour was largely a result of the enclosure movement. As population grew, more food supplies were needed while the demand for wool still increased. From a money point of view, sheep-farming was more profitable; as arable land was more fully used up because of the increase of population, and the pastures began to be insufficient, as the market for wool was almost unlimited, competition began between the two uses.

The interest of the landowner was not the same as that of the nation as a whole; a doctrinaire economist would answer that as the laws of demand and supply were obeyed, all was well. As a matter of fact the landowners were not offered the high prices for corn necessary to induce them to cultivate, for the very good reason that the labourers had not the money to offer; what money these had had more value to them than the same amount had to their aristocratic customers for wool products. It is no use to tell a starving, penniless man that he may have bread at a price, even a small one. Hence the interest of the landowners was directly opposed to the immediate interest at least of the labourers.

The tables were now turned, and the landowners used their advantage to the full. About a century after the Black Death, landlords wished to reduce the area under tillage and substitute sheep pasturage. First the lord, by himself or through his bailiff (or the free tenant where he had the power), turned the demesne land into pasturage. This was purely his own business and no one could object. Next he encroached on the miscellaneous rights, on the waste land, and in the woods. Here the villeins had no rights by statute law, but by custom were allowed to graze their animals and collect miscellaneous products, such as firewood. These wastes provided useful additions to the labourers' store. The landowners were feeling their way, and on the whole they were successful.

It was a serious matter when the lords (such as had retained their position) enclosed the common lands. The old system was bad and unworkable in a progressive age; any stimulus therefore would have set forces in motion to destroy it. Yet the change, as it took place, was bad for the individual villeins. By custom, which then meant by right, the land belonged to the villeins, on condition of certain payments. The sweeping away of this system, while leaving room for improved methods, was, if we take

a long view, all to the good as regards the nation as a whole, but these particular villeins had to pay the sacrifice always demanded from some individuals in times of change. The case was similar to that of the introduction of machinery in the nineteenth century. Then the country benefited, but that was little consolation to the Luddites. The enclosures were robbery, pure and simple; the labourers had a right to compensation.

13. Displacement of Labourers

Another blow was struck at the labourers in that sheep-farming required less labour than tillage. Hence the displaced villeins were left without work; they were ejected by their lord, and there was no tie binding them to any other person. Thus the conditions for the growth of a proletariat were present. The labourers were now in excess on the land, although the country was crying out for cheaper corn; they went to swell the lower classes in the towns; and as capitalism slowly developed, it gradually but surely tightened its grasp on these workers.

Enclosures were viewed with disfavour by the Crown and unselfish statesmen; Parliament as a whole, however, contained many landowners. Hence, although efforts were made to stop enclosures, they were of little use, and by the end of the fifteenth century a good deal of common land was enclosed. Enclosures were not all bad; some had tillage for their object, and if labour was kept on the land no great harm was done.

The villeins had lost their stable position, and they had not yet reached the conception of individualism and mobility of labour. Hence some substitute was required for the old feudal obligations, and some central action was necessary in order to prevent a fatal break in continuity with the past customs which had held society together. It will be shown in the following chapter, that this was provided in part, at least, by the regulative policy of the

Tudors and Stuarts which is known in history by the name of the Mercantile System.

14. Later Decay of Towns

Just as the Black Death originated the disintegration of the manorial system, so it helped to ruin the towns (as against country rivalry). The root cause of the change was the rise of the proletariat, but a century passed before the effects were marked, and the gild system prospered well into the fifteenth century. Then in some of the towns we notice a big increase of population, partly natural, mainly by migration from the country districts of men driven out by enclosures or otherwise attracted. However, in the middle of the century, Parliamentary Rolls tell us that the decay of many towns, *e.g.* Lincoln, necessitated a relief of taxation. In some cases ruin was caused by fire or other natural causes, but other factors were present.

Now the gild system, considered as a union of more or less equal numbers, was, as we noted, suitable for a stable population whose members were not increasing. It possessed some elasticity, and a slow increase in numbers would not upset it. As population grew rapidly, however, craftsmen multiplied and trades split up. Hence organisation became more complex, and the simple rule-of-thumb methods of the old gilds would now be less useful. Again, we have already, in describing the rise of the merchant class, noted the growth of a craft aristocracy and a proletariat depending on the richer merchants and craftsmen. The migrants from the country districts, and the foreign workmen encouraged to settle here by Edward III., would bring a fresh mind to industry; they had not the disadvantage of cast-iron and out-of-date methods, and their enterprise would be of great value in a changing age. Hence many things combined to make intolerable the oppressive formalism of a small monopolistic clique of craftsmen.

Industries were growing, and the presence of the new men was necessary. To avoid restrictions their obvious course was to move out of the city boundaries and carry on their trade there, much as residents of to-day tend to live just outside the towns in order to avoid high rates while retaining the advantages of city life; the towns in their turn try to expand and to bring the suburbs into their scheme. Hence the older towns were beginning to decay by the end of the fifteenth century.

15. Dissatisfaction of Journeymen

In the early fifteenth century the craft gilds fought against both the town authorities and the inferior craftsmen. Their laws were unreasonable, and in 1437 the Justices were given a temporary control over them. Soon the same difficulties arose again and the same remedy was applied in 1503. The gilds fulfilled none of their functions properly. The journeymen were dissatisfied, the public was ill-served, while apprentice disturbances showed that the gilds could not control their own members. In the early years of the sixteenth century matters were so unsatisfactory that Henry VIII. found it necessary to give the duty of gild supervision to the judges. Many towns now decayed, as did the old manorial authority in the villages. Towns all over the country, *e.g.* the Cinque Ports and Canterbury, were now relieved from taxation; in many cases they were in a ruinous state.

Once an unfettered competition grew up outside the town the gilds were doomed. It was of no use for the members to adopt certain measures voluntarily, while their rivals with greater mobility and energy were throwing off the old shackles. Trade could no longer be controlled by a small section, so that it passed into the hands of the craftsmen as a whole. We must not look on the newer craftsmen as having the same enterprise and freedom as the nineteenth century artisan had, for ideas change

even more slowly than conditions; but they possessed an advantage over their gild neighbours. At the end of the fifteenth century, many altogether new towns arose, *e.g.* Manchester, Birmingham, and Sheffield, and here there was no tradition of gild control.

Many struggles were necessary before the final suppression occurred. The system died slowly, as many of its fundamental ideas were merely transferred from a local to a national basis under Mercantilism. For practical purposes gilds existed in name for more than a century after our period, and some exercised a little control even after 1760; all privileges were abolished in 1835. At first all would be formal and correct. The journeyman would see that their chances of eventually becoming masters was becoming less, while their wanderings became longer and longer. The apprentice could no longer look forward with the same certainty to marrying his master's daughter, and the performance of an acceptable " masterpiece " no longer meant an existence as a master craftsman with a secure trade.

There was less stability, fortunes were made quicker, and speculation appeared. Rich employers began to exploit the labourers as a means of easy progress to a great position in the land, and these would much prefer freedom of selection and treatment of their dependents to the bondage of useless gild regulations. Again, the town as such no longer had those advantages, such as security and common feeling, that it had when the land was unsettled and craftsmen were few.

In industry then, as in agriculture, the interlocking system was shaken; it formed a stable combination, but once broken up return to old conditions was almost impossible. Here again the gild members made a hopeless struggle against new conditions; those who were worsted in the fight tried to return to the *status quo* and the old regulations, and such attempts were a real service in that they made the change more gradual.

Some substitutes there had to be, and the Tudor legislation, while it quite rightly attempted to control the industries outside the towns, yet made allowances for the new state of things; it laid down regulations as to the training of apprentices, so that it should be quite clear that all who pursued a craft at least had had some specialised education.

16. Apparent Working Back

Hence in appearance the new system was working back towards the pre-Conquest days. The town was a complex organisation built up slowly and carefully in accordance with the needs of the time, and it had weathered severe storms. Now it seemed that the work had been thrown away. We must, however, remember that the country life in Saxon times was very different from that of the Tudor period, while the work of the towns had not been wasted but had reappeared in the new industries, which could have arisen only by the gradual growth of carefully controlled industry.

Social conditions aided this movement. As wealth grew the merchants became rivals of the aristocracy, and wished to live away from their work. Even in the thirteenth century some merchants were strong enough to fight the king; by the middle of the next century they were very powerful. Similarly a rich craftsman would leave the house over the shop and move into the suburbs. This meant a severance from the social life of the town, old ties were snapped, and it would be easy to break all connection with the town, so that trade sites might change. Again, the growing wealth of the people led to more varied wants, in many cases to be satisfied only by goods from a distance. Hence trade not only increased in quantity but was carried on over longer distances. This reacted on the supply of goods and trade became more varied, so that gild regulations framed for a simpler time could no longer cope with it.

17. Development of Classes in Manufacture

With the simplicity of the organisation of production disappeared its comparatively democratic structure. Just as craftsmen became an inferior class to the merchants, just as apprentices and journeymen at last formed classes antagonistic to the master craftsmen, so among the crafts and the craftsmen differences in wealth and social status appeared. The chief merchants were now very rich and powerful, as were those old craftsmen who had benefited by their opportunities. Hence these could control the market, especially as old-time gild regulations against what we call " corners " were losing force, so that the lower craftsmen became dependent on the merchants.

Differences in detail there would be, but an artisan might receive the raw material from a superior and work it up, while the superior would " undertake " the sale. If the artisan did his work honestly he would be sure of a certain reward if employed by his master; but he had no chance of exceptional gain if the article should be much in demand. Hence the master took the risk, and obtained any exceptional profits. This would be an extreme case, but it marks the tendency at work, and shows the beginning of the " undertaker " or " entrepreneur," who was so much to the front after the Industrial Revolution. We have definite evidence, for under the Tudors an Act was passed to protect the craftsmen against rich and wealthy clothiers.

18. Sources of Wealth

It is characteristic of money, and of gradable goods which may be sold in large quantity, that their owners become immensely powerful as the size of their businesses increases. When such goods are produced on a large scale they are often more cheaply made, especially if there is control of the market, while a rich financier has the market almost at his mercy. Hence the tendency is for a rich man to grow richer, while rivals are ousted from the trade.

Thus in finance and in certain trades many made large fortunes, and these rich men, as well as the wealthy merchants, became rivals of the great landlords.

Again, as rich men appeared the control over the lower craftsmen became more absolute; and as the numbers of the members of the latter increased personal ties snapped, and the mechanical proletariat began to appear in the sixteenth century. The suppression of the gild system thus partly caused, and partly was caused by, the growth of capitalism.

Rich men there always were, but in early times sources of great wealth were twofold only. First a great landowner who had skilful bailiffs could obtain a large income from rents; if dues were commuted he could receive them directly, paying a smaller amount for cottar labour; if not, the sale of produce would have the same effect.

19. The Effect on Finance

The second early source of wealth lay in financial dealings. Rich men then, as now, tended to congregate in the capital or large cities, especially as a landowner generally had many manors and was not bound to a single one, so that money was here necessary though everywhere else its place might be taken by barter. Prodigals would require loans, as would other persons in emergencies. Hence money in the hands of a clever man, especially a Jew who might be little bound by scruple in dealing with Gentiles, could be made very productive.

This collection of richer men would require luxuries, generally obtainable only from abroad, and the small number of merchants would require ample recompense for their trouble. These luxuries would gradually filter into the country manors, and together with necessary commodities would form the basis of increased fortunes. As towns prospered craftsmen joined the race for wealth, and the entrepreneurs, the ancestors of our present millionaires,

began to obtain fortunes. Thus what Carlyle calls the " cash nexus " grew. Some large manufacturers certainly existed. John Winchcombe (Jack of Newbury), who died about 1519, was a great employer. He seems to have controlled at least five hundred workers under one roof. Stump of Malmesbury (Wilts) massed his workmen into a building of the modern factory type. These forerunners of the later entrepreneurs will be referred to again in the next chapter, when the capitalist movement can be considered more fully. After all, these men were merely outstanding instances of a tendency that had been at work since the Black Death.

20. Central Control

The mercantile system will be discussed in detail later, but by the end of the fifteenth century the soil had been well prepared. We have already seen how regulation was changing from local to central. Once the central authorities had shown their power, there was no turning back. Action was necessitated, partly by the growing complexity of trade, and partly because England was becoming more unified. Edward I. was the first king who seriously interfered with social conditions, but after the Black Death, the Proclamation started a new era of central control. Export of coin was forbidden, but not with a view to increasing the amount of bullion.

The protective system appears in full force with Edward IV., and this reign may be regarded as a preliminary foundation for the more comprehensive policy of the Tudors. The spirit of nationalism, first fired by the brilliant victories of Edward III. and Henry V., was rapidly coming to the front. The time had gone by for mere adjustment; the successive shocks to industry from the Black Death onwards brought totally new conditions. England was fighting for a place in the sun.

21. Position of the King

Regulation, whether good or bad, was expensive, and had to be paid for. Foreign victories cost much money, hence more coin was required than in Norman times. In the earliest times a king was a protector as well as a law giver, and received special privileges for his services. He was expected to live and to entertain out of the land which he possessed, and this principle was followed in Norman times, when in ordinary circumstances the revenues from the Crown lands had to suffice not only for the personal expenses of the king, and for hospitality, but for expenses of government. Hidden changes, such as a rise in prices, though real enough, were not held to be an excuse even if observed. The king was expected " to live of his own "; if he did not, he was charged with extravagance.

After Edward I., Parliament became gradually powerful, and kept the money back; yet more supplies were necessary. Pressure necessitated increased taxation, with a consequent firmer grasp on the king, till in Tudor times the undoubted ascendancy of the Crown was almost purely personal. Indirect taxes existed in the form of tonnage and poundage—that is, two shillings on every tun of wine imported, and sixpence on each pound of merchandise exported or imported—was granted by Parliament to Edward III., and renewed under Edward IV. Direct taxation chiefly occurred in the form of the fifteenth and the tenth; the poll tax, whether equal and equitable, or graded and so impossibly complex (for these times) as to invite evasion, generally failed to produce the expected yield.

In times of monetary difficulty, as when prices rose, kings were thrown on their ingenuity. After the expulsion and subsequent decrease in importance of the Jews, a useful reservoir of wealth was emptied, but rich financiers were always to be found willing or unwilling to grant " benevolences " or " loans " which might or might not be paid.

Edward III. repudiated his debts to the Italian houses; Henry VII. robbed his richer subjects; and Henry VIII. debased the coinage and confiscated the lands of the Church. The monetary troubles of the Crown, which date back to the French wars of the fourteenth century, reached their climax under the first Stuarts, when Charles I. bore the punishment for the sins of himself and his predecessors.

22. Foreign Trade

Foreign trade was not directly affected by the Black Death, but a brief notice of its development in the fourteenth and fifteenth centuries is necessary for completeness. In Chapter I. a brief account was given of the course of foreign trade between the time of the Norman Conquest and the Black Death. Protected by the Norman and Angevin kings, the Germans and Flemings obtained a firm hold and long monopolised the foreign trade.

England had traded with Germany from the tenth century. Cologne first obtained a privileged position under Henry II. The advantages were confirmed by John and his two immediate successors, and for some time this city stood alone. Lübeck received permission to trade early in the thirteenth century, and it was afterwards the chief city concerned in the extension of the German Hanse[1] to London.

England was backward, but was well fitted for sheep rearing; and Flanders was willing to buy its wool, sending manufactured goods in exchange. The trade with this country became important. Flanders was given permission to trade when Lübeck received it (1237). A league of seventeen Flemish towns seems to have existed in the twelfth century, and other cities joined it in the thirteenth century. At this time it seems to have established itself in England as the Hanse of London. It consisted chiefly of wholesale merchants, and died out about 1350.

[1] *Hansa* is an old German word for "company," "fellowship."

Italian merchants existed soon after the Conquest; these were skilled in money dealings. When Edward I. expelled the Jews, the Florentines naturally seized their opportunity. The Spaniards and Portuguese were attracted to Ireland rather than to England, but some merchants did trade with us. French trade was much more important, and was largely carried on in French ships. The close political connection with parts of France must be remembered. English merchants, however, began to be prominent early in the fourteenth century.

In the fourteenth century English exports were hides, tin, fish, corn, and metals; a little coal was exported in this century. Linen was imported from Flanders, wine and salt from Guienne, while expensive luxuries, spices and silk were brought by Italian merchants. Pitch and timber came from the Scandinavian forests, and furs from Northern Europe generally.

Trade changed after the thirteenth century because England began to manufacture for herself. The exchange trade with Flanders was clumsy. Wool was dear in that country because an export duty had to be paid in addition to the expenses of carriage. This raised the price of cloth on the Continent, and this was further increased in England by the expenses of transport. Thus it would be a great saving if manufactures could grow up where wool was cheap.

This happened in the reign of Edward III., partly by the development of native craftsmanship, partly by the immigration of Flemish artisans. The practical result was that trade was no longer forced into one channel.

The Flemish did not need to buy our manufactures; they had been forced to take our wool. Hence the old staple system broke down in fact if not in form, and the lines of communication changed. The older merchants tried to keep up the staple; their rivals wished for economic freedom.

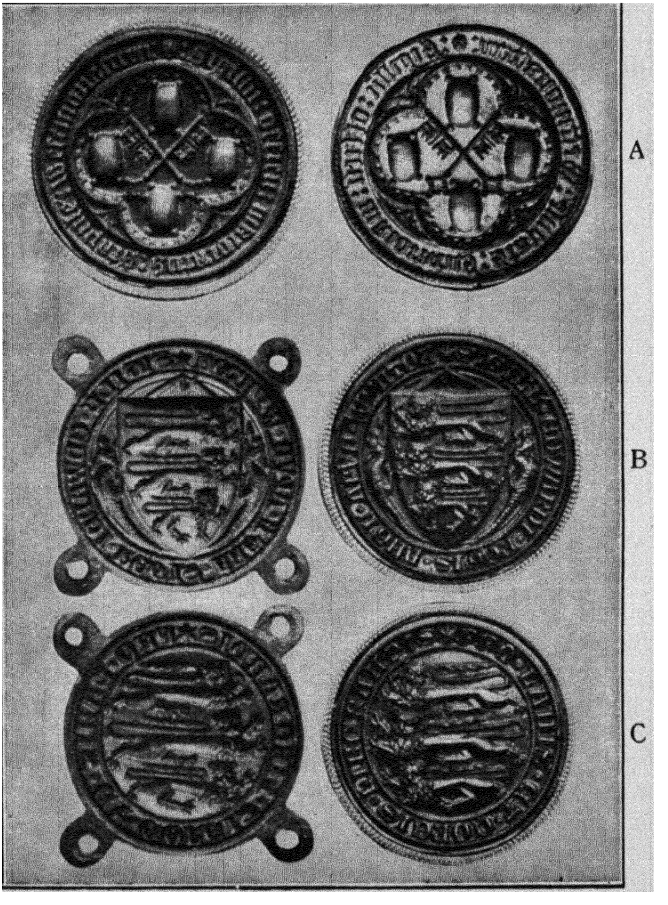
The usual smuggling process took place. At first, the new merchants threw over restrictions, taking the risks. They were so successful that in time the staple system became impracticable. The progress of English shipping began. Not only did native merchants arise, but a new spirit originated among the seamen. Englishmen again gradually became adventurers, and a mercantile marine was built up.

23. Merchants of the Staple

The Company of the Staple was the oldest of the mediaeval companies other than the gilds. It originated early in the twelfth century through the desire of the English kings to control the export markets through private traders. Down to 1326 the staple town was always fixed in Flanders or Artois, but in the reign of Edward II. an ordinance was passed providing that the staple of the merchants, and the merchandise of England, Ireland, and Wales, namely, of wool, hides, woolfels, and tin, should be held in eight towns only. These staple towns were to be the only marts of export: here alone alien merchants might buy, and here alone, native merchants might sell to aliens. All merchants were to be subject at the staples to the law merchant, and the wool merchants were given a Mayor of the Staples.

In 1353, a great consolidating Act, the Statute of the Staple, was passed. It fixed the staple of English merchandise at ten towns: Newcastle, York, Norwich, Bristol, etc. To these centres all wool was brought, the sacks weighed and sealed by the mayor of the staple, prior to export. Customs duties were paid at the ports.

The machinery which the statute created for carrying the provisions into effect consisted of a mayor and two constables, and certain men of standing were appointed as correctors before whom buyers and sellers might register their bargains. Alien merchants were allowed to choose two assessors to assist the mayor, and a board of six



SEALS.

A. Seal of the Mayoralty of the Wool Staple at Westminster, 1393.
B. and C. Seals of the delivery of wool and hides at Winchester and Lincoln in the reign of Edward I.

arbitrators was set up to decide disputes. The staple was governed, not by the common law, or by the customs of the town, but by the law merchant.

From 1353 to the end of the fifteenth century, frequent changes were made, but after 1398, the wool staple appears to have been confined to Calais. The organisation of the company was of a very loose kind; indeed until the opposition of the Merchant Adventurers in the closing years of the fifteenth century compelled some degree of consolidation, it is difficult to describe the Staplers as a company at all. After the fifteenth century they were overshadowed by their younger and more vigorous rivals, and for all practical purposes, they pass out of history in the reign of James I.

24. The Hanseatic League

Magna Carta, and later, the Statute of Merchants, 1283, had protected foreign traders. The Germans then obtained a footing. A number of towns had banded together to form the rich and influential Hanseatic League, which when most powerful could defy kings and ruin rebellious towns. Its control over shipping was unbounded. The League obtained a practical monopoly of trade with this country. The German Merchants in London were lodged in a large building called the Steelyard; Cannon Street Station is built on its site. Other important ports, *e.g.* Bristol and Lynn, contained Hanse houses.

The fifteenth century saw a great development in trade, and the changes in manufactured goods were continued. Trade became wider in scope. Bruges was the great port of this time. Situated on a waterway large enough for the ships of that time, and not far from the sea, it was in a central position for Flemish manufacturers, and in easy communication with England. The Hanse granted it a monopoly; most ships had to call at Bruges; merchants there had thus the first opportunity of buying goods.

THE STEEL YARD AND NEIGHBOURHOOD IN 1540.

The Headquarters of the Hanseatic League. From Van Wyndgard's Plan, taken for Philip II. of Spain.

No doubt, this privileged position was the means of much trade between England and other countries. In particular, trade with Spain was carried on through this port. In the first half of the fifteenth century there was keen competition between Venice and Genoa for the Flemish trade. The Venetians saw that it was necessary to widen their operations. They began to trade with Southampton, and their visits were repeated.

The Steelyard was not abolished until 1598, but even before the end of the fifteenth century the power of the Hanse in England had weakened, and like the Merchants of the Staple, it was unable to oppose successfully the growing might of the Merchant Adventurers.

25. Merchant Adventurers

The early history of the Company is a little obscure; some authorities regard the Adventurers as an off-shoot of the Staplers, others as growing out of the Guild of Mercers, for down to the end of the fifteenth century the minutes of the two Companies were kept in the same book.

Just as the Staplers gradually became the home merchants, mainly concerned with the export of the raw product, wool; the Adventurers became the English Merchants domiciled across the seas, in foreign parts, though near home, and importers into foreign cities, not of wool, but of cloth made in England. In 1406, Henry IV. granted a charter to the Company of Merchant Adventurers which gradually obtained control of the Flemish trade. The Merchants copied the methods of the Hanseatic League, and obtained a footing abroad by forming a hanse at Antwerp. In 1464 the famous William Caxton became governor, but at that time the company appears to have established itself at Bruges. By the end of the century, however, Antwerp had certainly become the headquarters of the fellowship, and as the export of English manufactures increased, the company was able to control

the stream of commerce by means of its privileges in this Flemish city.

It was not until the days of the Tudor sovereigns that the name Merchant Adventurers came into official use. By that time the Company had grown to maturity and strength, and had out-distanced its rivals, the Staplers, and the Hanse League.

26. London Companies

The Merchant Adventurers must be distinguished from the London Merchant Companies, the richest of which became very important in Elizabethan days. Most of the Livery Companies, so called from the distinctive dress, originated in the fourteenth century. The Livery Company differed from the merchant gild both in its greater importance, and in its limitation to one trade. It differed from the similarly confined craft gild in that it had no direct interest in production, but regulated trade. Of course the power of the Livery Company might be so great that it absolutely controlled the craft concerned.

These merchant companies supervised the sale of all commodities, almost confining themselves to foreign commerce, as in the fourteenth century, the home trade was already monopolised. Twelve companies became very rich and formed an oligarchy which practically governed London for centuries. The Grocers' Company, which grew out of the wholesale trade, was founded in 1345. The other great early company, the Mercers, developed about the same time out of the retail trade. Each had an offshoot towards the end of the century, the former developing into the Apothecaries and the latter into the Haberdashers.

In 1364 the Vintners' Company was founded, and was soon followed by the Drapers' and Fishmongers'. Merchant companies were instituted by Henry IV. in 1405 to preserve peace among English merchants abroad. Lesser livery companies developed, but all except the twelve

richest had a subordinate place. Like the monasteries, they were attacked by Henry VIII., and only the richest recovered from the confiscation.

27. Industries

Until the end of the fourteenth century, England was predominantly rural, but among the economic changes of the fifteenth century none was more striking in its rapidity or more far-reaching in its consequences than the development of manufactures, and if the Tudor period witnessed a great expansion of economic activities it was largely because of the preliminary work done between the years 1380 and 1485.

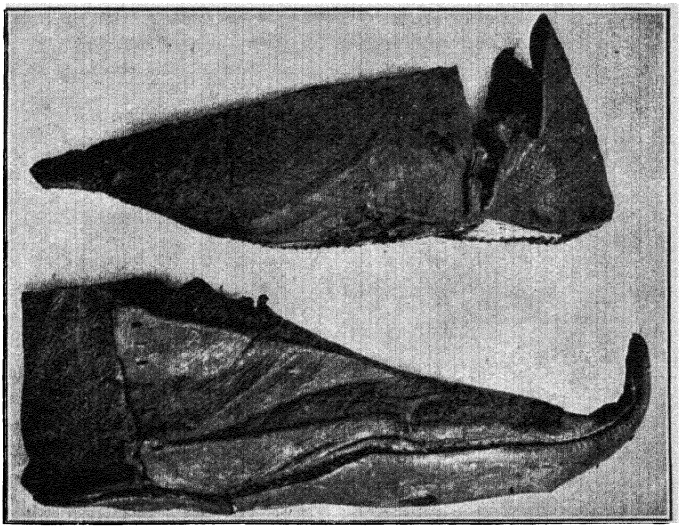
Even before the end of the fourteenth century an Act of Parliament mentions Somerset, Dorset, Gloucester, Bristol, Essex, Norfolk, Suffolk, Yorkshire, Lancashire, and Coventry as centres of the cloth manufacture. In the fifteenth century it spread to London, Cambridge, and Cornwall.

The cloth manufacture was not the only industry that took root in England in the fifteenth century. By 1455, the silk trade was established in London, and coal-mining round Newcastle; the first iron works were started in the Forest of Dean, and stone quarries in Devonshire. There were linen weavers in London, and bell foundries in Salisbury, Norwich, and Gloucester. Carpets and tapestry were also made at Ramsay.

Mention will be made several times in this work of immigration of foreign workmen. It is true that this influx was specially marked in certain periods, but it never wholly ceased from the Norman Conquest down to the eighteenth century. Between the years 1400 and 1485 Dutchmen settled at Winchelsea to manufacture salt, and in the eastern counties to brew beer. They also revived the old brick-making industry, which had partially died out.

In the reigns of Edward IV., and Richard III., Flemings

and Germans found employment here as gun-makers; and during the second half of the century shipbuilding must have progressed. An Act of Henry VII., 1495 deals with ship-wrights, ship-carpenters, hewers, clinchers, and caulkers, none of whom are even mentioned in 1444. In 1400 a man-of-war had only two masts and two sails; by the



LEATHER SHOES OF THE TIME OF EDWARD III., FOUND IN LONDON.

end of the century these were three- or four-masters, with top masts, top sails, bow sprits, and sprit sails. The first dry dock known in England was constructed at Portsmouth in 1495, and no foreigners were employed in the work, for in shipbuilding, at least, England was no longer wholly dependent on the alien artisan.

CHAPTER IV

ECONOMIC DEVELOPMENTS IN TUDOR ENGLAND

1. Introduction

The accession of the House of Tudor to the English throne had important economic as well as political consequences. Some of these events have been anticipated in the previous chapter; they will now be examined in greater detail.

Economic changes are easy to exaggerate; the old and the new persist side by side for long periods before a revolution is completed; but the sixteenth century has strong claims to be regarded as the starting point of modern economic England. In England, as in France, on the ruins of the mediaeval political system arose a strong centralised monarchy; the nobility, the clergy, and other corporations lost the semi-independent position they had enjoyed in the Middle Ages, and all political power became concentrated at a single centre, though to a much less extent in this country than across the Channel. In France, for instance, the barriers against absolutism were almost entirely removed.

This concentration of political power and development of national consciousness was reflected in the economic sphere by that tendency to economic nationalism which is usually described as Mercantilism.

2. Mercantilism

Mercantilism was not a system consciously and definitely applied; it was rather a trend of thought. It was not a policy that originated with the Tudors; its principles had governed international commerce for centuries, and they persisted in England until the Industrial Revolution was

under weigh. After the publication of Adam Smith's *Wealth of Nations*, and the rise of Ricardian economic science, Mercantilism in England gave place to individualism; since the war, however, nineteenth-century *laissez-faire* has suffered an eclipse, and we have apparently entered on a phase of what some publicists describe as Neo-Mercantilism.

The reason for Mercantilism is not far to seek. It is the community idea that is old, not individualism. Only since the second half of the eighteenth century has philosophical thought separated individual interests from those of the community. Even so late as 1748, a celebrated French writer, Montesquieu, laid down the principle that freedom of trade is not the right of the individual merchant to trade as he pleases, regardless of the interests of the State.

Mercantilism was simply the pursuit of economic power. The final object was a strong, economically self-sufficient national State independent of other States in the economic sphere. From this general proposition a number of particular consequences were derived. In the name of national safety a large and increasing population was desired; a favourable balance of trade paid in bullion in order to create a war chest was aimed at; and for similar reasons agriculture, industry, and shipping were protected and stimulated in various ways. Speaking broadly, these measures were considered from the point of view of the State as a unity, not as a loose aggregate of independent individuals. Where the public interest, real or supposed, came into conflict with that of the individual or class, there was a definite tendency to make the latter give way to the former.

Since the days of Adam Smith, Mercantilism has been riddled with criticism, especially with respect to its measures designed to increase the country's supplies of precious metals. The advocates of the system did not, as

frequently has been assumed, fall into the fallacy of confounding the precious metals with wealth. They were moved by practical considerations. In an age of chronic and unexpected warfare, and when credit instruments were in their infancy, the advantages of a large supply of gold for military purposes are beyond doubt. Even in the first years of the present century the European Powers paid some attention to this point.

Recent criticism is on sounder lines. Mr. Lipson has shown clearly that many measures passed to promote trade hampered it in practice. The Navigation Acts, designed to foster seamanship, curtailed the possible volume of trade. The protection afforded to one branch of industry frequently reacted unfavourably upon other branches. Taxes on raw materials were often injurious, owing to the fact that the finished product of one industry is sometimes the raw material of another. Prohibitions on the import of foreign manufactured goods reduced the demand abroad for English articles sent normally in exchange. More important still, as Mr. Lipson emphasises, Mercantilism demanded a state regulation of the economic life of the country for which its administrative resources were wholly inadequate. The civil service scarcely existed; the legislature was corrupt, hence many measures embodying high ideals and statesmanlike aims were futile in practice and became a source of petty and vexatious interference, which later aroused the indignation of Adam Smith.

Another defect, and one attended by serious consequences, was that Mercantilism contained the assumption that competitors for international trade are in a state of perpetual warfare. The belief was wide-spread, that, with respect to commercial matters, nations are in a state of natural antagonism, the prosperity of the one being realised only by the impoverishment of the other. This led to the belief in a limited volume of international trade and the passing of measures specially designed to diminish

the prosperity of competing nations, regardless of the fact that in matters of foreign trade it is impossible in practice to isolate competitors from customers. As Montesquieu, a critic of Mercantilism a generation before Adam Smith, aptly said, an increase in prosperity in one nation will reflect its effects upon others; an agricultural nation developing manufactures should occasion no alarm among peoples already industralised, for its new sources of wealth will allow it to purchase articles it cannot imitate and which enter for the first time within the circle of its needs.

It is not difficult to see why the Mercantilist tendency received a strong impetus from the hands of the Tudor sovereigns. The Crown was now sufficiently strong to make economic regulation on a national basis a possibility. In addition to this, as the old feudal revenues became more and more inadequate for the increasing expenses of public administration, especially after the fall of money values with the influx of gold and silver from the New World, the Crown was compelled to rely for revenue more and more on taxation. For this reason alone, the Government was forced to take greater account of the resources of the country, the possibilities of its trade, and the welfare of the people, in order to raise the limit of taxable capacity.

The sixteenth century witnessed a commercial and geographical revolution. The Turkish conquests in Egypt and Syria, blocking the ancient trade routes to the East, led to the discovery of new lands beyond the Atlantic Ocean, and the circumnavigation of Africa. An immense impetus was thus given to international commerce and shipping, which assumed a magnitude and importance hitherto unknown. Foreign trade questions began to dominate political relations, and England, France, Spain, and Holland entered into a commercial rivalry which persisted for nearly three centuries, with the result that maritime supremacy passed to England.

3. William Cecil, Lord Burleigh

Tudor Mercantilism is well illustrated by the commercial policy of William Cecil, Lord Burleigh. As Secretary of State, Burleigh, by virtue of his position in the Privy Council, the administrative centre of the Elizabethan system, exercised a powerful influence on the regulation of

WILLIAM CECIL, LORD BURLEIGH, 1520-1598.

economic matters. At that time England lagged behind Western Europe in many of the arts, and was dependent on foreign factories for most of the munitions of war. In view of the constant possibility of invasion by the Catholic Powers, France and Spain, Burleigh developed a com-

prehensive scheme for the development of iron and copper mining in England, and for the provision of native supplies of gunpowder. To further this end monopolies in the production of sulphur and saltpetre were granted to individuals, and German miners were imported to search for copper and iron north of the Tyne and round Keswick. The fortunes of the Royal Mines Company admirably illustrate the nature of his policy. Measured purely by business standards, this enterprise was a failure; on the other hand, as a means of providing copper and iron for the manufacture of cannon, the undertaking achieved no little success.

National interests centred round shipping even more than round munitions of war. Not only were bounties paid on shipbuilding, but measures were taken to ensure the necessary supplies of building materials. Ruthless and wasteful cutting down even of private timber was prohibited; restrictions were placed on the exportation of barrels and boards; and in spite of the legitimate needs of the iron trade of Sussex and Kent, timber for fuel was not allowed to be felled within a certain distance of the coast. The selling of English ships to foreign buyers was sternly forbidden, and the growth of flax and hemp for sail cloth and cordage was encouraged. All along the coast, Burleigh gave special attention to the repair and improvement of harbours, and coastal piracy was severely repressed.

Burleigh was fully aware of the importance of the fishing industry in connection with the Navy. In times of peril, fishermen were natural recruits for manning the ships of war. As, however, the flourishing state of the fishing industry of Norway, Flanders, and France offered small scope for the export of English-caught fish, the home consumption was increased by the compulsory revival of the former Roman Catholic fish days each week and throughout the whole of Lent. The Acts relating to this measure were rigidly enforced, and there seems reason to

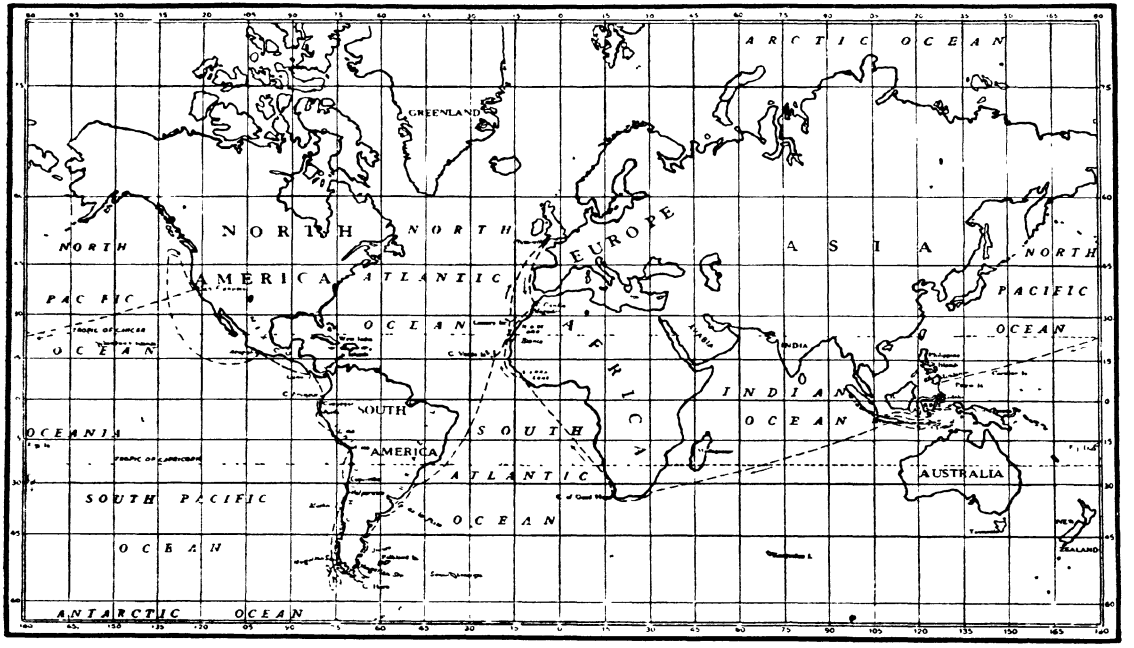
SIR FRANCIS DRAKE, 1540 (?)-1596.
Admiral and Explorer.

believe that during the period 1560 to 1600, the number of fishermen gradually increased.

4. Foreign Trade and Discoveries

The important effects of long distance voyages on maritime power did not escape the Tudor sovereigns. Henry VII. assisted two expeditions of John Cabot to explore the coasts of Labrador and Nova Scotia. Up to the middle of the sixteenth century, however, England was distinguished neither for her trade nor her seamanship, our foreign exports being mainly shipped by the Venetians and the Germans of the Hanse towns. At the time of the accession of Elizabeth the London Merchants were suffering from a severe depression of trade and the competition of the foreign merchants of the Steelyard. In 1553, the younger Cabot, who had returned to England under Edward VI. to become the governor of the Company of Merchant Adventurers, the chief English Society of traders, sent out, with Burleigh's approval, an expedition under Willoughby and Chancellor, with the object of opening up trade with the countries of the North and East, and if possible, of discovering a North-East passage to India through the Arctic Seas. Chancellor reached Moscow by way of the White Sea, and initiated a trading connection with Russia that developed into the Muscovy or Russian Company. Chancellor was the first of the great Elizabethan voyagers.

The expeditions of Drake, Hawkins, Frobisher, and Davis had indirect effects on shipbuilding and foreign trade, and the plantations of Raleigh in Virginia mark the real beginning of English colonial expansion. Elizabeth's rupture with Spain, and the ruin of the commerce of the Netherlands by Alva, had favourable reactions on English trade. The transference of the factory of the Merchant Adventurers from Antwerp to Hamburg involved the English merchants in a quarrel with the Hanseatic League, as a result of which the Hanse traders lost their special



DRAKE'S VOYAGE, 1577-1580.

privileges in England, and the Eastland Company was formed to compete in the Baltic Trade. The Turkish conquests of the Eastern Mediterranean lands, and the Portuguese discovery of new sea routes to the East ruined the commercial power of Venice. This afforded opportunities of which the London Merchants were not slow to take advantage. In 1581 they formed the Levant Company, which in a few years extended its operations past the Persian Gulf to India; and attempts were also made to open up trading connections with the northern shores of Africa. These ventures had two important results. In the first place a good deal of trade that previously went to Southampton was diverted to the Thames; and secondly, English enterprise gradually gained the control of our foreign trade exercised for centuries by alien merchants.

These geographical discoveries in the sixteenth century had, subsequently, important industrial effects. They led to a series of trade wars in the seventeenth and early eighteenth centuries in which England vanquished successively, Spain, Holland, and France. In this way she gradually acquired control over world markets, and over potential supplies of raw materials, with the result that before the middle of the eighteenth century her rapidly-expanding foreign trade necessitated a speeding up of the means of production. Indirectly, at least, the geographical discoveries of the sixteenth century paved the way for the Industrial Revolution.

5. New Draperies

The encouragement of native industries and the stimulation of new ones was a settled part of the policy of all the Tudor rulers. Henry VII. authorised the settlement of foreign weavers; Somerset, in 1551, planted a colony of Flemings at Glastonbury Abbey. After his fall the colony was in difficulties, but enjoyed the protection of

Edward VI. On the death of the young king they gradually migrated back to the continent.

The Spanish persecution of the Protestants in the Low Countries by the Duke of Alva drove hundreds of Dutch and Walloon weavers across the seas. They were welcomed by Burleigh and the Privy Council as a valuable accession

A Dyer
From Whitney's *Choice of Emblemes*, 1586

to the economic resources of the country. Settling first in Norwich, whose trade had greatly declined since the rebellion of Kett, they introduced the manufacture of new types of woollen goods, finer fabrics which either were previously unknown in England, or were beyond the technical skill of the English artisans of that time. As a result of this immigration the revenues of Norwich more than doubled, and the city entered on a new period of prosperity.

New Draperies were also established at Colchester and other Essex towns, and there were settlements of aliens in London, Canterbury, Stamford, Sandwich, and Southampton. A good deal of local jealousy was aroused in these towns by the favour shown to these foreigners by the Privy Council. The City of London companies made several attempts to exercise supervision over these aliens, but effective control over the conditions under which they did their work, and over the quality of the goods they sold, was rendered difficult by their settlement in parts of London over which the Companies had no jurisdiction. In Norwich the settlers were treated as aliens, and were not allowed to enter into retail trade.

The policy of the English Government with respect to these foreign workmen was very definite. They were encouraged to settle here with the primary object of diffusing their technical skill among the native English. At Southampton, for example, the authorities allowed numerous aliens to settle on condition that each craftsman taught a trade to two English apprentices for a period of seven years. Nowhere were the newcomers permitted to keep their trade processes a secret. In addition to the Dutch and Walloon craftsmen, after the Massacre of St. Bartholemew, numbers of French Huguenots found a refuge along the Sussex coast, especially around Rye.

Another textile industry supposed to have received an impetus at this time was the cotton trade. Prior to the sack of Antwerp by the Spaniards the cotton trade flourished there, the raw material being imported from Egypt. After the "Spanish Fury" of 1576 refugees carried their art to Bolton and Manchester, though, as Professor Clapham has pointed out, there is no decisive proof of this point.

Local tradition assigns the origin of certain Birmingham industries, brass, cutlery, and glass manufactures to the alien immigrants of this period, and as Birmingham and

Coventry had undoubted connections with Flanders in the time of Henry VIII., this tradition has probably foundation.

Other industries, which were either developed or introduced by foreign craftsmen in the age of Elizabeth, were

GERMAN PEWTERERS
(Schipper, 1568)

paper-making, thread-making, and silk-weaving in East Kent, lace-making in Bedfordshire and Buckinghamshire, and potteries in London, where the firm of Doulton still flourishes in Lambeth.

6. Monopolies

Mention has already been made of Burleigh's activities with respect to munitions of war. Elizabeth herself was anxious to introduce into England the production of alum, soap, oils, and salt, which had previously been imported. The specific method of fostering new industries was by the grant of patents or monopolies, that is, of exclusive rights of manufacture to individuals or companies, English or alien. It is not without interest, too, to notice that these enterprises were on large-scale capitalist lines, and conducted by moneyed men; in other words, monopolies are a good example of the early intrusion of private capitalism into industry.

The Tudor method of promoting new industries illustrates both the merits and defects of mercantilist principles. Where, through a patent, a new industry was introduced that would not otherwise have developed, there was a definite national gain. The task of protecting the general interest against private greed and advantage was entrusted to the Privy Council and Burleigh, through whose hands all petitions for monopolies passed. No petition was granted unless its claims appeared valid and free from objection. Burleigh, for instance, refused to grant a monopoly of refining sugar to Newell and Milday on the ground that it was contrary to the public interest to restrict such a manufacture to one or two private persons only. On the other hand, when a company applied for the exclusive right to manufacture window glass, which Burleigh ascertained could not be produced by opponents of the scheme in England, the patent was granted for twenty-one years. In spite, however, of Burleigh's precautions, abuses gradually crept in. Elizabeth found it a very convenient way of rewarding courtiers; the grant cost the Queen nothing and was often very lucrative to the recipient. In 1597 Parliament remonstrated with the Queen against the abuse of the practice. In 1601, when

another Parliament found that monopolies were being conferred with more freedom than ever, a storm burst, and even Sir Walter Raleigh judged it prudent to publicly renounce his patents. Elizabeth wisely bent before the storm and promised to revoke all monopolies that weighed heavily upon the people. The question, however, was by no means settled, and proved a source of discord between the first two Stuart kings and their Parliaments.

The industrial arts, that of textiles in particular, made solid progress during the sixteenth century. To what extent this was due to Tudor statesmanship is difficult to determine with precision. Dr. Cunningham estimates the services of Burleigh very highly. On the other hand it has been remarked that with respect to textiles, the industry expanded the most in places exempt from the Weavers Act. Foremost among these places were Lancashire and the West Riding, which enjoyed the advantages of a comparative *laissez-faire* at a time when the regulation of industry was part of an accepted national policy.

7. Industrial Organisation

After the above preliminary sketch, it is necessary to examine in some detail the industrial organisation of this time. Industrial changes are difficult to divide into periods; dates are only very approximately correct; progress and change throughout the country as a whole were far from uniform. Speaking broadly, from the fourteenth to the sixteenth century industrial organisation was marked by an increasing loss of independence on the part of the craftsmen. This was due to multiple causes, the chief of which were the gradual widening of the market, the increasing employment of capital, and the development of new business faculties suited to the new conditions. The fourteenth and fifteenth centuries were distinguished both by a tendency to the amalgamation of kindred crafts and by a differentiation of sub-trades within a craft. In

the sixteenth century, however, organisations which had arisen in the first place to represent the interests of the trading class only, now began to absorb the organisation of the handicrafts over which they had obtained economic control. The first two movements, though of earlier origin, were still active in the Tudor period.

As an example of the amalgamation of kindred crafts the case of the Gloucester metal-workers may be cited. At the end of Elizabeth's reign the goldsmiths, pewterers, coppersmiths, wiredrawers, pin-makers, and plumbers of that city combined to form a Company of Metal Workers. The forces that brought about an amalgamation of this kind were probably on the one hand a partial decay of certain local crafts, and on the other, the rapid expansion of one particular industry.

But the cloth trade furnishes the most striking examples of this kind of amalgamation. By the middle of the sixteenth century the trades engaged in the finishing processes of cloth-making showed a strong tendency to amalgamation. In 1538 the London fullers and shearmen, and within the next fifty years, the cloth-walkers and cloth-workers of Durham, the shearmen and dyers at Oxford, and the weavers and walkers (*i.e.* fullers) at Worcester united their organisations.

Sixteenth-century examples of the second tendency, the differentiation of classes within a gild, are very numerous, especially in the case of the London Livery Companies. There was a marked movement towards a highly oligarchical form of government which had for result the gradual exclusion of all ordinary freemen from the direction of affairs. In the reign of Henry VIII. the ordinary craftsmen were completely subordinated to the merchants in the Goldsmiths' Company, and a similar separation of mercantile from industrial interests was effected in the other companies. This movement had results of considerable economic importance and gave a strong impetus to the

formation of a separate journeyman class. Handicrafts which supplied a purely local demand were little affected, but in the industries which now began to cater for a wider market the gild master developed into a merchant employer. The more enterprising of the journeymen formed a class of small masters, and these two classes became the most important elements of the sixteenth-century industrial organisation.

The Tudor period witnessed a definite march towards a national economy. Industry began to transcend the narrow limits of the old towns, and the country districts began to develop as centres of industry wherever the conditions were favourable. An increasing number of wants began to be supplied from a distance, a fact which hastened the decay of the gilds, and the distinction between the various economic classes—merchant, retail dealer, master, and workman, grew more pronounced.

The formation of a special class of industrial capitalists, whose interests were bound up with the towns, led to a series of protective measures designed to protect the towns against the new centres of industry. Between 1500 and 1560 a number of measures were passed to further this object. Worsteds woven outside the city of Norwich were forbidden to be shorn, dyed, or calendered except in that city, and no worsteds could be exported that had not been so treated. The purpose of this Act was, without doubt, to keep the finishing stages of manufacture under the control of the Norwich shearmen and dyers, and to exclude the competition of the capitalists of the surrounding country districts. In Worcestershire, the manufacture of cloth was restricted to certain towns, and in 1555 a general attack was made on the country trade by the famous Weavers Act. This Act, which has been interpreted by some authorities as a humane attempt to protect the workers from the growing evils of capitalism, was, however, more harmful to the interests of weavers than to those of the

town employer. The ultimate object was to restrain the growth of a class of country capitalists, and in this connection an Act of the previous year, which prohibited country dealers from selling in towns except by wholesale, is of special interest, for it was an attempt to force the main stream of trade through the hands of the townsmen. These two Acts mark the general application of a policy which had been gradually developing with respect to particular towns since the early years of the century.

The special tendency of the sixteenth century, the absorption of crafts by trading associations, was stimulated by the measures passed for the benefit of the towns. It became increasingly difficult for the separate crafts to maintain an isolated independence. To participate in the benefits of the protection of town industries it was necessary to sink their individuality in the new trading organisations which that movement was bringing forth. In the cloth trade, for example, capitalist development forced the various branches of that industry into constantly closer relations. As a successful capitalist gradually expanded his business it was impossible to prevent him from encroaching within the sphere of other crafts. Shearmen began to employ dyers, and dyers to employ shearmen; weavers started the practice of sending out cloth to be finished before disposing of it to the merchant, and the former lines of demarcation gradually faded away.

8. Elizabethan Companies

High light on the preceding paragraphs is thrown by a brief examination of the London Livery Companies which were the result of the changes, and tendencies in development in the first half of the sixteenth century. The organisation of the Clothworkers' Company may be taken as a typical illustrative example. The members of this company fell within three broad classes—the exporters, the merchant employers, and the craftsmen, and in

HENRY VIII. PRESENTING A CHARTER TO THE BARBER-SURGEONS (*after Holbein*).
Sir George Barnes is receiving the Charter.

addition to those following a distinct and different trade, there were the retailers. The interests of these various classes were by no means identical, and there appears to have been a good deal of friction between the handicraft and trading sections. It was to the interest, for example, of the wealthier members to evade the law that restricted the exportation of unfinished cloth in the interests of the craftsmen, and to keep the system of control as elastic as possible in order to open up opportunities for individual enterprise.

During the middle decades of the century the handicraft elements were separated from, and subordinated to, the mercantile sections, and the control of the company passed from the hands of the richer master-craftsmen, who were also traders, into those of the merchant employers, who had little or no practical knowledge of the industry.

These changes did not altogether prevent the growth of a spirit of corporate unity. The craftsmen, for example, acquiesced in the regulation of the conditions of their craft by the governing body of the company, but they made it a matter of difficulty. Two points of diverging interest have already been noticed. The question of apprenticeship caused frequent disputes. Both the journeymen and small masters favoured limitation, and wherever the small masters of a trade were well organised the rule of two apprentices to each master was strictly enforced. On the other hand, the successful masters, wishing to increase their profits by means of cheap labour, had a strong incentive to employ as many apprentices as possible, and in all cases where the final authority in a company passed into the control of the trading class the apprenticeship rule and others designed to protect the artisan were either neglected or evaded.

The period 1560-1600 is marked by the increasing dependence of the journeymen. By this time they had lost all immediate control over the election of the Court of

Assistants, the governing body. In cases of dispute with their masters, their only means of action were an appeal to the Court, or to strike, and their appeals were not always heard with sympathy. On the other hand, in arbitrating between the small masters and merchant employers the Court of Assistants appears to have acted impartially. This differentiation in treatment is significant of the rise of class distinctions in industry and of the increasing power of capital.

9. Capitalism

The precise origin of capitalistic industry is difficult to determine. Like other economic changes it had a long and gradual economic development. Long before Tudor times the tin mines of Cornwall were worked on a wage-earning basis; and in the new sixteenth-century mining and metal industries a sharp distinction must be drawn between such processes as the smelting of copper or the manufacture of brass and the fashioning of the raw materials into the finished product. The former set of processes were organised on a capitalist factory basis from their first introduction into this country.

But it was in the cloth trade that development was most significant, for as yet the metal industries on a large scale were in their infancy. Even here, however, the transition was very gradual; the rate of change must not be over-estimated, as the domestic system was still the rule late in the eighteenth century. Isolated instances of large-scale production in the woollen cloth trade occurred in the fourteenth century. Blanket in Bristol, inaugurated in 1339, an approach to the factory system by employing under one roof weavers and workers in other branches of the wool trade; and when Kempe migrated from Flanders to England by invitation of Edward III., he established his business on similar lines.

Between 1500 and 1600 instances of great capitalists with a business organisation no longer domestic were more

frequent. John Winchcombe of Newbury was the most important. The story is related that he marched to Flodden Field at the head of a hundred of his own workmen, and under the management of his son the business obtained a European fame. After the dissolution of the monasteries in 1536, a rich clothier named Stump purchased Malmesbury Abbey, which he transformed into a factory. In 1546 he acquired a second establishment at Osney, near Oxford, and at the time of his death had over 2,000 workmen in his employ.

In addition to Winchcombe and Stump, there was Blundell at Tiverton; Tucker at Abingdon; Dolman at Newbury; Cuthbert at Kendal; and Hodgkins at Halifax. All these men employed fullers, carders, dyers, etc., as well as spinners and weavers. These examples refute the idea, formerly widely held, that the large-scale factory business was unknown before the Industrial Revolution.

Correlated with the rise of the capitalist clothier was that of the large wool merchant. The large capitalist clothier doubtless frequently purchased his raw materials direct from the wool grower, but the man with more limited capital required a credit from the wool producer which the farmer found inconvenient to grant. On the other hand, direct buying was a disadvantage to all but the largest clothier, as a single fleece usually contained several sorts of wool, suited to different kinds of cloth. The necessity, therefore, of specialising the buying and sorting of wool, occasioned the rise of the capitalist wool merchant alongside the capitalist clothier. In foreign trade, the merchants of the wool staple were an ancient corporation in the sixteenth century, but it was not until this period that their activities became general in internal trade.

10. Agricultural Changes

In dealing with the consequences of the Black Death, mention was made of the movement to enclose the common

fields and wastes during the fourteenth and fifteenth centuries. It is inaccurate to suppose, as is sometimes done, that the land of England was enclosed practically in two centuries, the sixteenth and the eighteenth. In point of fact, the movement is older than the Black Death, and was not completed until near the middle of the nineteenth century; but although it was continuous, the sixteenth and eighteenth centuries were undoubtedly the periods of its greatest activity, and certainly the periods in which its social consequences were most pronounced.

Opinions differ as to the cause of the special impulse to enclosure in the sixteenth century. It is usually asserted that the high price of English wool, due to the expansion of the cloth trade at home, and in Flanders, led to a widespread enclosure of waste land and arable land for pasture. On the other hand, it is estimated that the root cause was less the demand for wool, than the low price of grain, the result of the restrictions placed upon export by the Tudors.

Both causes probably operated; it is not without significance that the greatest outcry against enclosures occurred about the middle of the century, at the time when the confiscated lands of the Church would have passed to the hands of commercially-minded owners anxious to put their estates to their most economic use.

All the land enclosed was not the work of the large farmer and large landowner. There is evidence to prove that a good deal of land was enclosed at that time by agreement between neighbouring peasants. Enclosures of this kind are of small importance compared with those of the first class. Enclosures by the peasants created no social problem; enclosures by the landowners and large farmers did, and as we shall see in the section on the Poor Laws, the sixteenth century enclosures by landowners created the gravest of all social problems—pauperism.

The fundamental change, of which enclosure is only a phase, was the transition from subsistence farming to

farming for the market; the consequent development of competitive rents, and the rise of a landless agricultural proletariat, wage-earners on large leasehold farms.

At the beginning of the century rural society, apart from the large landowners, consisted of three classes—freeholders, customary tenants, and leaseholders. The class of customary tenants is not easy to define; it included a variety of tenures by no means identical in all parts of the country. Not all customary tenants were copyholders, many of them had no written title at all; it was the customary tenants who received the full shock of the agrarian changes, and when the century closed a good deal of land formerly held by custom of some kind, or by copy of the manorial court roll, had become leasehold.

The social and economic effects of such a transition are not difficult to grasp. Speaking broadly, the customary tenants, by far the most numerous class, were legally in the weakest position to withstand the forces making for consolidation. Tenants at work on the wastes and demesne lands, and even small leaseholders on the demesne lands, suffered acutely, for it was here that evictions were conducted on a large scale. The exact legal protection enjoyed by the copyholders is still a matter of dispute; on this point competent authorities differ widely. The term copyhold itself is a little indeterminate. It included copyhold by inheritance, and copyhold for life; again, manorial custom was not identical everywhere, and the copyhold of the old customary manorial lands must be distinguished from that of the more recent copyhold of the demesne lands and the waste. Copyholders by inheritance on the old customary lands were difficult to evict; other cases enjoyed much less security. What does appear certain, however, is that during the sixteenth century a definite movement was made towards the modern English system of large landowner, large farmer, and landless agricultural class; but care must be taken not to exaggerate

the extent of the changes, for considerable tracts of country in the north, the west midlands, and the south-western counties, were little affected.

11. Agricultural Regulations

Although progress was made towards production of corn for the market, and capital was sunk in the land for that purpose in the reign of Elizabeth, agriculture was still too primitive to make external regulations of special consequence. On the other hand the home trade was subjected to minute regulation in the interests of the consumer. These regulations were administered by the Justices of the Peace and the Clerks of the Market, working under the direct authority of the Privy Council.

The Clerks of the Market had independent jurisdiction in the regulation of weights and measures, and in the fixing of prices, and it was part of their duties to ensure that wares of all kinds offered for sale were of good quality. Their primary object was to prevent, or to limit, the manipulation of prices that seemed inseparable from the new conditions. All attempts of the middlemen to enhance artificially the price of foodstuffs by the various devices known in mediaeval times as forestalling, ingrossing, and regrating, and in modern commercial parlance as cornering, were vigorously resisted, and, in the comparatively simple structure of sixteenth-century society, with a fair degree of success.

12. Money. Rising Prices

One disturbing factor of economic life in the sixteenth century was the sharp rise in prices due to the fall in the value of silver. From the middle of the fourteenth century to the discovery of the New World, the trend had been in the opposite direction owing to the steady drain of silver to Africa and Asia. The Spanish conquest of Mexico and

Peru, in the first half of the sixteenth century, and the simplification of the extractive process by the use of mercury, opened up vast new sources of supply, and by the end of the century the amount of silver in Europe had quadrupled.

Though the Spaniards, in accordance with the ideas prevalent at that time, attempted to retain this treasure within their own hands, the precious metals began to flow into this country, partly through foreign purchases of wool and cloth, and partly as a result of the buccaneering expeditions of the Elizabethan seamen. The effects on prices were disastrous. Owing to the absence of precise statistical data, it is impossible to measure the changes with exactness, but there is no doubt that they were direct and serious, more particularly as their incidence was unevenly distributed. Those with incomes fixed by law and custom, the landowners and wage-earners, suffered acutely, and it is not unreasonable to suppose that this factor accentuated the agrarian problem. Competition as the determinant of wages and rents was yet in its infancy; these prices were still ruled mainly by custom and legislation; the inevitable tendency of a rising price level would be to diminish the need for labour by enclosing for pasture land previously under the plough.

13. Silver Recoinage

The difficulties of the situation were aggravated by the fact that the true nature of money was but dimly perceived with the result that the explanation of the changing price level was sought for elsewhere—in human greed. Modern research has now demonstrated that the fundamental cause of the conflict between Parliament and the first Stuart kings was due less to their extravagance and love of arbitrary power than to the fact that under changed conditions it was no longer possible to administer the Kingdom with the old revenues.

Rising prices, however, did call public attention to the state of the coinage which had been debased both by Henry VIII. and Edward VI. In the early years of Elizabeth's government, the silver coinage was gradually called in and reminted at the cost of the State, the work being executed under the supervision of Sir Thomas Gresham. But the results, as we should now expect, fell below public anticipation. The purified coinage did not occasion the desired fall in prices. Without doubt, a certain percentage of the rise was rightly attributed to the practice of tampering with the currency, but the evil was more deeply rooted. Apart from the monetary side of the equation, the gradual weakening of the force of mediaeval custom on prices with the growing tendency to produce directly for the market, by introducing a speculative element, would make for greater variability in the price levels.

14. Finance

As will appear in the next chapter, the true foundations of English banking were not laid until the second half of the seventeenth century. Nevertheless, certain necessary antecedent conditions were making their appearance in the time of Elizabeth. One of the original functions of the Banker, money changing, is as old as foreign trade, and was organised by the Jews, and by the Lombards in Venice and Genoa, in the early Middle Ages. By the sixteenth century, this business had passed into the hands of the Flemings, and Antwerp had become the financial centre of Europe. The first European bank of which we have record was founded at Venice in 1584, and some years later the Banks of Amsterdam and Hamburg were constituted.

The business of international finance received an undoubted impetus during the monetary revolution in the sixteenth century, when the masses of bullion imported from the mines of the New World were distributed over Europe.

The purchasing power of bullion would naturally vary in different localities, and the operations of the dealers would be reflected in the foreign exchanges, and draw public attention to their importance. It is not improbable that we have here a cause of the changed attitude towards usury which legalised interest in the following century. Another cause was the Reformation, although some early Protestant preachers and writers denounced usury no less than did the Catholic Church.

By the time of Elizabeth the financiers of Antwerp had become a power in the rising European money market. Rising prices, and the substitution of mercenary troops for the old feudal levies, made it impossible for sovereigns to indulge in warfare without recourse to the method of loans. Elizabeth borrowed freely from Antwerp lenders until the ruin of that city under Alva's administration paved the way for the rise of London as a financial centre. At the time of the Armada she was able to raise considerable sums on loan from her own subjects, from the liveried and other regulated companies in London, as well as from private individuals. Even before the close of the sixteenth century the power of finance was exercising effect on the political policy of governments. In Bishop Burnet's *History of My Own Times* it is related that Sir Thomas Gresham delayed the sailing of the Armada for a whole year by means of a financial operation. Aware that the Spanish Government was pressed for funds, and that it was dependent on its credit in the Bank of Genoa for the means with which to victual its fleet, Gresham " cornered " all the Bills on that Bank with the result that there was no money current there which the Spaniards could borrow.

The practice of working on borrowed capital was not confined to governments. The Elizabethan voyages overseas for the purposes of trade and discovery were financed in this way, and so were the privateering expeditions of Drake and his contemporaries against the Spaniards.

The system was gradually extended to purely private enterprises. Financiers like Sir Thomas Gresham organised the application of private capital to the development of various branches of industry. Towards the end of the century, the low rate of interest in Holland, and the high degree of political security in this country, rendered England a suitable outlet for surplus Dutch capital. The land drainage of the fen districts of the eastern countries were financed mainly by means of Dutch loans; and whilst it is true that these undertakings did not really mature on a large scale until after the accession of the Stuarts, when capitalistic organisation made rapid progress, the germs of the movement were planted in the age of Elizabeth.

15. Poor Law and Labour Legislation

(1) INTRODUCTION. With respect to labour legislation and the Poor Laws, the Tudor period is specially important. Many labour measures were passed solely in the interests of industrial conditions; on the other hand, as many of them had the additional object of relieving and preventing mendicancy, it is convenient to consider both classes concurrently.

The problem of unemployment and poverty has a long history. Destitution was not unknown in Anglo-Saxon times. Some redistribution of wealth has always been held necessary in civilised countries, and a starving person generally seems to have obtained sympathy. The Middle Ages were dominated by the power of the Church, one of whose chief concerns was the care of the poor. In human times the lord was himself responsible for the care of his dependents. The villeins and cottars were at least serfs, and bound to the land, so it was held that they had the right of obtaining a living from it. If for any reason this was impossible, the serf looked for protection; as labour dues began to be commuted and personal ties declined, it was

no longer of prime importance to keep the serf to his lord, and the responsibility was thrown on to the parish. This in England was not altogether satisfactory; in Scotland legislative interference was not necessary.

The monasteries from the first held that one of their main duties was poor relief, though their importance in this respect may have been exaggerated. Attached to each abbey was an almoner who investigated claims and dispensed relief, while vagrants and chance claimants were also well treated. Conditions then were different from now, and the work was more easily managed; the population in Norman times was one or two millions, and in London less than 50,000.

The Church was also a charitable medium; a third of the tithe, which in theory all passed to the priest, was devoted to the poor. Many endowments were dispensed in the same way. Church collections were also made.

The gilds, as already noticed, were friendly societies; though as a rule they contained the best workmen, many of these would meet with accident, illness, or misfortune, and the case would be treated by men who had a personal knowledge of, and direct interest in, the case. Later the gilds became rich, especially as they outlived their usefulness; in comparatively early times the merchant gilds had reached this stage unless they had developed into the craft gilds. Much of the wealth was devoted to hospitals and almshouses. Charitable bequests for schools, etc., were administered by the gilds as well as by the Church; and in this way the London City Companies still prolong their usefulness.

The Black Death had increased vagrancy; enclosures for pasture had caused unemployment. In the fifteenth century many were unable to find work, and the distress was rendered more acute by the break up of the feudal system which lessened opportunities for service in war and in the castles of the baronage.

In the sixteenth century several circumstances accentuated the problem. The dissolution of the monasteries by Henry VIII. and in a less degree the confiscation of the gild funds under Edward VI.—though the London gilds were spared—cut off at one stroke the main source of relief. The impotent poor suffered greatly; the able-bodied wandered over the country as rogues and vagabonds. Further, the many servants formerly employed at the monasteries were cast adrift.

The greater scale of manufactures in Tudor times rendered employment less stable than the old occupations. To some extent the growing manufactures created an intensified demand for labour; but this very increase of manufacturing industry had effects of its own in increasing the numbers of unemployed. For one thing, the peaceful life of the craftsman favoured the growth of population. Secondly, and much more important, the widening of the market was accompanied by fluctuations in the demand for commodities. Simple manufactures catering for a narrow market varied little; in bad times the craftsman might receive less work, but he was not thrown completely out of employment. With the rise of manufacturing centres new conditions sprang into existence; men began to lose their work through circumstances over which they had no control. As early as the time of Henry VIII. a serious crisis causing great distress in the cloth trade occurred when Wolsey wished to make war on the Netherlands.

As has already been noted, the influx of silver from the New World caused a gradual rise of prices during the century. Food, clothing, and rents rose more rapidly than wages, inflicting great hardships on the poor. This evil was further increased by the debasements of the coinage in the reigns of Henry VIII. and Edward VI.

Another important cause of distress was the conversion of large tracts of arable land into pasture. The home and foreign demand for English wool made it much more

profitable to breed sheep than to plough up the land, and in the sixteenth century England had become the great wool-producing country of the world. Men who had cultivated the soil were evicted on a large scale in order that sheep runs might be formed, and both agricultural labourers and small yeomen helped to swell the numbers of the unemployed.

(2) HENRY VII.—ELIZABETH. The increase of vagrancy arising from the conversion of arable land to pasture occasioned alarm in the early days of Henry VII. In the Isle of Wight a limitation was placed on the size of farms, and owners were compelled to keep cottages in a state of repair; beggars were confined within their own hundred under drastic penalties, though women with child, and impotent persons, were exempt from the Act. This marks a change in the spirit of legislation.

Henry VII. also regulated servants' wages, and hours of labour and wages of artisans. Husbandmen and artisans were compelled to serve where required, and masters were prohibited from paying more than prescribed rates. Ship-carpenters and caulkers were also placed on the scheduled scale; this suggests that shipbuilding had become by this time a recognised branch of industry.

All the general principles of Tudor legislation are contained in these measures of Henry VII. A discrimination was made between those who could, and those who could not work, and men were compelled to accept work when offered at prescribed rates.

Henry VII. did not succeed in controlling the evil. Henry VIII., after passing stringent sumptuary laws against extravagance, and prohibiting certain foreign imports with a view to increasing employment for English artisans, was driven to take drastic measures against vagrancy. Able-bodied vagrants ("sturdy beggars") were to be tied to the end of a cart naked, and beaten with

whips through the town " till their bodies were bloody." In 1531, the aged and impotent poor were permitted to beg in their own parish, under licence, but the solicitation of alms by able-bodied mendicants was made a punishable offence. In 1536, provision was made for finding work for able-bodied unemployed. Every parish was ordered to create a voluntary fund for this purpose, and vicars were requested to exhort charitable people from time to time to increase their contributions to the above object. The various local authorities were also instructed to apprentice all vagrant and orphan children to husbandry or a craft; and although these enactments were limited by the fact that contributions were raised by the voluntary principle only, they mark the creation of a parochial machinery for the control and relief of the poor, and they furnished the foundation for later development.

The economic consequences of the Reformation reached their climax in the next reign, with the result that the voluntary system of relief became partly compulsory in spirit, for very severe pressure was put on persons refusing to contribute to the poor relief fund. Several Acts were passed by Edward with a view to diminishing poverty in connection with industry and trade. Combinations of sellers or workmen to raise prices were declared illegal, and in the supposed interests of manual labour gig mills were forbidden in the woollen trade. This expression of fear that machinery would curtail the demand for labour had a long subsequent history, and so long as the market was local and limited, the fear was not without foundation.

Vagrancy received for a time even severer treatment than under Henry VIII. By an Act of 1547, the vagrant was branded and could be given as a slave for two years to anyone who asked for him; if no one did, he was to be set to work on the highways, if necessary in chains. The menace to society of bands of vagrants drove the government to this savage measure; but it was soon felt to be

too severe, and in 1549 it was repealed, and the Act of 1531 was revived.

Mary tightened the voluntary principle of almsgiving by the compilation of a register of the inhabitants of each parish together with separate lists of the impotent poor. The result was that the duty of giving regular assistance became practically an obligation on all those in comfortable circumstances, or in constant employment. Mary also attempted to regulate food prices in the interests of the poor by restricting the exportation of corn and provisions of every kind.

(3) ELIZABETH. During the reign of Elizabeth, legislation took a sharp turn. Experience had proved the inadequacy of the voluntary principle to meet the demands made upon it, and some measure of compulsion now appeared necessary. Accordingly it was enacted in 1562 that any person obstinately refusing to contribute to the poor fund should be committed by the Bishop to the Quarter Sessions, to be taxed by the Justices at their discretion.

The importance of this measure is difficult to overestimate. The power of compulsory assessment was only faintly allowed, and only when all persuasive measures had failed. It is, however, the first instance in our history of compulsory assessment, and marks the definite inauguration of a new order.

In 1563, a second Act was passed which, though it made no direct reference to the poor as such, had as its primary aim the prevention of destitution by the forced employment of all healthy persons below a certain age limit. It also sought to stop the influx of unskilled workers into crafts, and ensure a sufficient supply of agricultural labour. This *Statute of Artificers* (or apprentices) is a landmark in the history of labour legislation, and although its provisions were not continually, and everywhere enforced, it remained

a standard of reference for the country down to its repeal in 1813.

All previous legislation with respect to labour was here summarised. Every unmarried person, and every married person under 30 years of age, not having 40 shillings per annum, and out of employment, was compelled to serve as a yearly servant in the trade to which he was brought up. No one was permitted either to leave or be dismissed from such service during the year, except by the sanction of two Justices; and no one leaving employment with this sanction could change their town or parish without a certificate under the corporate seal, or one signed by a constable and two householders. Severe penalties were attached to any infringement of this regulation either by master or servant.

All persons between the ages of 12 and 60, if not otherwise employed, were to serve in husbandry by the year under penalty of commitment to the Sessions.

Hours of work and mealtimes were also laid down, and the Justices were empowered to fix in annual Sessions, rates of wages for all servants, labourers, artificers, and apprentices in accordance with the then prevailing prices of provisions. The wages clauses, which were set out in minute detail, have been interpreted both as an attack on, and a defence of, the labourer. But as summer rates were fixed higher than winter ones, wages must have been settled above starvation point.

One important clause was in the interests of agriculture. At harvest time, to prevent the loss of corn, hay, or grain, the Justices were empowered to compel such artisans as were necessary to serve in the fields at prescribed rates.

Of not less significance than the wages clauses were those relating to apprenticeship. The Statute made the institution of apprenticeship compulsory on all engaged in industry. What had before been regulated by local law and custom now became the law of the land. The clause

provided that with the exception of those already engaged in industry, no person should practice any occupation unless he had previously served an apprenticeship to it of seven years. Quality of workmanship was thus guaranteed, and the skilled workman was protected from the competition of unqualified workers. The Act did not specify the number of apprentices a master might employ, but it compelled, in certain industries, a master who had three apprentices to employ one journeyman, and an additional journeyman to each extra apprentice bound.

Ten years later, in 1572, the Law of 1601 was foreshadowed. The Justices were ordered to register the aged and impotent poor, and to place them in fixed habitations unless the parish in which they were found had already provided for them. The voluntary principle was continued but, as in the case of 1562, persons refusing without reasonable grounds to contribute could be forcibly assessed by the Justices, and imprisoned for non-payment.

Under this Act, overseers of the poor were continued in office for one year, and persons appointed were compelled to serve.

Further Acts preventive of destitution provided for municipal employment of the able-bodied poor and Houses of Correction were instituted in which persons refusing to accept this employment might be set to work by the Justices, and punished from time to time as the authorities should direct.

Elizabeth made various attempts to create employment. In 1566, and in 1571, the use of English-made hats was enforced on all below the rank of knighthood; and with the object of increasing the acreage under tillage the export of corn was allowed when prices were low. In the interests of public health, in 1588, an Act was passed prohibiting the building of new rural cottages, and the converting of old buildings into houses, unless to each at least four acres of land were attached. This Act was

subsequently extended to town buildings and the erection of houses below a certain size in and around London and Westminster, and the sub-division of houses into several tenements was forbidden.

16. Poor Law, 1601

In the closing years of the century compulsory assessment for the relief of the Poor was definitely established. By that time, the experience of the century had proved the futility of merely repressive policy towards the able-bodied unemployed, and the inability of voluntary charity to cope with the problem of destitution. In 1601, the statute on which our system of poor relief has rested until recently was passed in its final form. It is inaccurate, as is sometimes supposed, to regard this Act as a change of principle; the innovations were remarkably few. Except as regards some modifications of detail, the Act is merely a summary of principles which had been slowly developing since 1562. At the time, 1601, it was regarded as a temporary measure only, but was continued under James I. and Charles I., and remained the most important Act of its kind down to the Poor Law Amendment Act of 1834.

The main provisions are as follows:—

In every parish, overseers of the Poor shall be nominated yearly in Easter week to serve with the Church wardens. These overseers shall, with consent of the Justices, raise by taxation of every inhabitant, occupier and owner of houses, land, tithes, etc., in the parish, such sums of money as are necessary for the following purposes:—

(*a*) For setting to work all children whose parents are unable to maintain them.

(*b*) For setting to work all such persons, married and unmarried, having no means to maintain them-

selves and who use no ordinary trade of life to get their living by.

(*c*) For providing stocks of flax, wool, and hemp for setting the poor on work.

(*d*) For the necessary relief of the aged and impotent, and others not able to work.

The overseers were ordered to meet monthly, and to render an annual account to the Justices of all income and expenditure. The Justices of the Peace were given power to commit to gaol all persons refusing work given by the overseers; they were also empowered to issue warrants of distress in case of non-payment of the poor rates, and if necessary to commit the offenders to prison.

This Tudor system has been outlined in some detail because it illustrates so aptly, not only the gradual development of economic institutions, but the process of transition from private responsibility to the assumption of that function by the State.

CHAPTER V

AGRICULTURE, INDUSTRY, AND COMMERCE, 1600-1760

1. Preparation for Change

Sudden changes leave their mark on history, and often act as stimuli quickening effects already in progress; thus their temporary effect is very marked. At other times an alteration occurs apparently without cause. In both cases slow changes work unnoticed. Our present period is an example of the latter type. There were few volcanic disturbances, and no great progress at any one time, but the nation at the end of the period was so prepared, and external stimuli quickened so suddenly the changes made during the period, that we speak of the coming of a Revolution.

England was now no longer composed of a very large number of similar manors, each defined by local geographical or other conditions, but variations throughout the country appeared. Labour and capital gradually became more mobile, so that industry and types of agriculture began to spread from place to place.

Hence, though a bridge might originally mark a small town, and then the exact site of a large industrial city, wider geographical conditions began to determine the distribution of the large towns. A general knowledge of English geography is essential.

2. English Geography

The centre of England consists of a sandy plain which throws out three arms: through Cheshire and West Lancashire, through Nottinghamshire and up the middle

of Yorkshire, and down the Severn Valley, respectively. This land is fertile, naturally pastoral, but may be easily tilled. The first two arms enclose the most important area, the Pennines, a region of high ground, with narrow green valleys in which the population is concentrated. Except in South Yorkshire the middle of the Pennines consists of limestone hills, extremely suitable for sheep. On each flank lie hills of hard sandstone, covered with barren moors and never very fertile, but enclosing valleys in which swift and often very large streams run. On the edges of these again lie lower hills, little more fertile, fit only for cattle pasture and rough tillage, but underlain by coal, iron, building stone, fireclay, and other valuable mineral products.

To the north-west of this lies the Lake District, with fertile pastoral valleys and barren mountains. Wales and the peninsula of Cornwall and Devon are similar, but East Devon is lower and more fertile. A range of limestone hills runs from West Dorset by the Cotswolds to North-West Lincolnshire, good for sheep grazing, and is followed to the east by a flat clay vale, very wide and fertile in the Fens and suitable for cattle or agriculture.

From East Dorset to East Anglia and thence through Lincolnshire to the East Riding runs a line of chalk hills, again suitable for sheep, very low in East Anglia, and these are found in another range branching from the first at Salisbury Plain, running through Hampshire, there splitting into the North and South Downs, which enclose the Weald, formerly wooded (hence the name) and containing much ironstone. For the rest the Welsh border counties resemble Wales, while two triangular plains, fertile in parts, are found in South Hampshire and in the lower Thames valley respectively. North-East Yorkshire is high and barren.

One or two further points will interest us even at this stage. Iron-smelting was important in the Weald in

Roman times, but gradually declined as the timber (for charcoal) was destroyed. Again, the number of small market towns (now mere relics) observed on a map of East Devon or East Anglia shows the former importance of these districts. The former had a favourable climate with rich soil; the latter had the soil which sheep love, in the only part of England where it occurs on a plain, while Southern East Anglia possessed good agricultural land.

Hence pastoral districts with good communication prospered after the Black Death; the famous Leicester and Lincoln breeds of sheep were bred on the chalk hills; Northampton boots, on the other hand, had their origins in the moist cattle land of the clay plains.

The Pennine districts played a small part in mediaeval times. Apart even from the devastation by the Conqueror, the land was not naturally fertile except in Mid-Yorkshire, where towns did grow, while the limestone mountains were too remote and savage for the development of a large pastoral farming class. The hills on each side must have seemed as hopeless as the unreclaimed fens, but their turn was to come. The population then was concentrated in East Anglia, in the south-west, and, naturally, in the Home Counties.

3. Agriculture

Agriculture was gradually losing first place in the life of the people; its stable character in this period necessitates a short survey only. Most of the tendencies can be summed up as a slackening or reversal of the policy before 1600. The enclosure movement never ceased, but during the seventeenth century it declined in importance. Connected with this was the fact that tillage began to hold its own again, mixed farming becoming more general. New land was taken in, *either like the Pennine moor "intakes" or the drained fens.*

(1) FLEMISH CULTURE. The seventeenth century witnessed several innovations in agriculture imported mainly from Flanders. Clover, turnips, coleseed, and sainfoin began to be cultivated. Turnips had been grown as a

CHARLES, SECOND VISCOUNT TOWNSHEND, 1676-1738.
(*After Kneller.*)

garden crop in the reign of Elizabeth, but about the middle of the seventeenth century they were introduced as a field crop by Sir Richard Weston. The importance of root crops and artificial grasses is difficult to over-estimate. After their introduction it was no longer necessary to leave

one-third of the land fallow each year, and the root crops allowed the keeping of cattle alive through the winter. Fresh meat was thus available all the year round, and the substitution of fresh for salted meat was one of the causes of the decline in the death-rate, and the growth of population.

(2) TOWNSHEND. Between 1650 and 1760 Weston was succeeded by a number of spirited cultivators and innovators. Foster advocated potato cultivation; Viscount Townshend (1674-1738), nicknamed Turnip Townshend, a famous British statesman, retired to Rainham in Norfolk in 1730, at the end of his political career, to devote the remainder of his life to experimental farming. His chief merit was that he applied the earlier theories of alternate husbandry and the planting of turnips and other root crops, thus making consecutive corn seasons unnecessary. He advised improvements such as the marling of a sand soil, and the extended use of clover. He strongly advocated enclosures. His work was the means of providing fodder for animals, and this made later developments in breeding possible.

(3) TULL. A second great name was that of Jethro Tull. He was born in Berkshire and was scientifically inclined, inventing and improving many agricultural implements. He saw that the roots of a plant were scattered more widely than had been supposed, so that overcrowding of seeds was to be avoided. He thus recommended "drill" sowing in parallel, regular lines, and invented his machine, the "drill," for that purpose. He also supposed (wrongly) that the only use of manure was to bring the roots into more intimate contact with the nutriment in the ground; hence he recommended excessive pulverisation of the soil into small fragments, the result being that the plant could more easily obtain its food. By these means he obtained corn crops on a single piece of land for thirteen successive years.

JETHRO TULL, 1674-1741.
From a contemporary painting.

(4) BAKEWELL. Bakewell and Coke really belong to the agricultural revolution in the second half of the eighteenth century, but as a hard and fast line is impossible to draw, they may be referred to here.

Robert Bakewell of Dishley (1725-1795) became famous for his experiments in sheep and cattle breeding. Before his time, sheep had been reared almost exclusively for their wool, but on account of the rapid increase of population in the eighteenth century, new supplies of meat food were vitally necessary. Bakewell, by careful selective breeding, increased the weight of the mutton considerably.

(5) COKE. Coke of Holkham (Earl of Leicester), was another public-spirited landowner who made a contribution to agricultural improvement. He not only made use of the innovations of his predecessors, but also formed parts of his estate himself on large scale capitalistic lines. Through his influence and example, Norfolk farming became a pattern for the rest of England.

(6) DRAINAGE. Another agricultural improvement was the drainage of water-logged lands. Some progress in this direction was made in the last decades of the sixteenth century, but under the Stuarts it received a fresh impetus. The Great Fens, extending from Lincolnshire to south of Cambridgeshire, was in the early seventeenth century a wilderness of bogs and pools; a vast morass with a number of scattered islands of solid earth, and thinly peopled by fishermen, willow cutters, and wild fowlers. The reclamation work was undertaken by a Dutch engineer, Cornelius Vermuyden, assisted by workmen brought over from the Low Countries, and financed by various capitalists encouraged by the Government. As a result, about 400,000 acres of waste land were transformed into rich, fertile country.

(7) ENCLOSURES. Alongside the movement for reclaiming fen land the enclosure of common wastes and the attack

against common cultivation steadily proceeded. This movement was not so intense as in the preceding century; neither was the controversy waged round it so bitter. Two circumstances favoured it. The policy of the early Stuarts in permitting the export of corn made tillage more remunerative, hence enclosures of common wastes for arable purposes were frequent. The second reason was increasing demand for meat in the seventeenth century. This, and the desire to economise in wages gave an impetus to enclosures for pasture-farming down to the middle of the eighteenth century.

It is true that protests were occasionally made, and at times the Government intervened, moved no doubt by the old fear of famine and depopulation. During the personal government of Charles I., the Privy Council refused to sanction enclosures unless proof was supplied that the area under tillage would not be diminished. In the second half of the century, however, public opinion underwent a change, and several circumstances robbed the old arguments of some of their force. The low price of corn weakened the fear of famine, and the expansion of trade and industry in the towns offered openings for labourers displaced in the country. As a matter of fact, the quantity of corn raised steadily increased during the century owing to the technical improvements made possible by enclosure, and the more economical use of the land. The connection between agriculture and industry was now better understood, and the fact was perceived that the production of wool may create far more employment in the towns than the reduction made in the country by the transition from arable to pasture.

(8) YEOMANRY. The social effects of enclosures reached their point of maximum during the industrial Revolution at the end of the eighteenth century, when the yeoman class, once the backbone of English life, disappeared from the countryside. Arnold Toynbee suggested that this class was in full vigour as late as 1760. More recent investiga-

tion concludes that the decay of the yeomanry can be traced back to the enclosures of the seventeenth century. Pasture and improved arable farming were in many ways unsuited to small holdings, and even in the seventeenth century a good deal of land was bought up with money made in trade. The movement towards the concentration of estates is older than the Industrial Revolution, as the only chance for a rich trader to enter aristocratic society was to possess much land. Hence there was keen competition for the lands of the tenant farmers and the yeomen. Where a freeholder was in difficulties through mismanagement after a bad year, the high prices offered proved irresistible.

This trend was inevitable, so that the tendency was towards increase in the size of estates, and these would not be split up where primogeniture was in force. Thus the yeoman as a class slowly but surely disappeared, to the great misfortune of the country. The labourers increased in numbers; where the estates were tilled, more of this latter class were necessary.

4. Corn Laws

As the production of corn for the market more and more replaced subsistence farming, the middleman came into prominence. He was not, of course, unknown in the Middle Ages and Tudor times, as the numerous regulations against the manipulation of the market by means of forestalling, regrating, and engrossing bear witness. This unpopularity was the result of a widespread belief that scarcities were artificially contrived in the interests of private greed; hence internal free trade in corn was never wholly permitted until the eighteenth century.

With the accession of Charles II., opposition softened a little. In 1663 it was permitted to buy corn in the open market, store it for resale, and under certain conditions, sell it again at a future date. Adam Smith remarked that

all the liberty the inland trade in corn has since enjoyed may be traced back to this Act. The changing spirit is also shown by the recognition of Child that the middleman had become an indispensable factor in distribution, and by 1734 the regulations against the forestallers, regraters, and engrossers of corn had become obsolete. In 1772, the old laws were formally repealed.

The laws governing the foreign trade in corn are very old. The oldest law on the statute-book dates back to 1361, and under the Tudors and early Stuarts enactments with respect to the export and import of corn were frequent. In the interests of the consumer, however, the export of corn was always conditioned by home prices down to the Restoration. In 1670, a change of policy was made. The former limitations were removed, and an Act was passed allowing the export of corn whatever its price in the home market. This change was made undoubtedly in the interests of the producers, the landowners and corn growers, and was rendered possible by the fact that improved agriculture had created a surplus above the needs of the home market. In 1689 this policy was carried a stage forward, and all customs duties on the export of corn were removed.

In practice, however, the interests of the consumer were not wholly neglected. In bad seasons the trans-shipment of corn was prohibited. Bad harvests were not uncommon during the first half of the eighteenth century, and an embargo on export was frequently placed down to the revival of a statutory limit in 1773.

5. Bounties

Corn production was also encouraged in another way. Partly to stimulate production, and partly to stabilise prices, bounties on export were instituted in 1673, and again in 1689. Readers familiar with the *Wealth of Nations* will remember Adam Smith's severe condemnation of this

system. Whatever may be urged against bounties as a general principle, they achieved their immediate object, for during the first half of the eighteenth century the export of corn increased enormously. Moreover, they do not appear to have decreased the home consumption of wheat bread, and it is highly probable that they retained for the plough a good deal of land that but for the bounties would have been used as pasture for sheep.

6. Political Changes

Before we pass on to industry we must glance at political changes. As a rule, in highly civilised communities governments come and go, leaving little trace on the actual life of the people, and what effect there is generally relates to the maintenance of order. In England, a line of hereditary kings touched the common people at few points. The sixteenth century, however, ended in a period of mental activity, which left its mark on all things. A religion which everywhere takes deep hold of its followers had almost vanished, and the spirit of independence led further to reasoned thought; in this way all authority was put to the test.

Dissent brought out a type which laid much stress on individual liberty of thought and action, and Nonconformity, though despised, was yet feared by Elizabeth and her courtiers. Hence this spirit was gradually growing, none the more slowly under oppression. Soon it made itself felt. The Tudors had little real power as sovereigns, and they knew it. Hence they had to select the members of Parliament by the creation of rotten boroughs (especially by Elizabeth), or by pressure at elections; in addition, the masterful character of these sovereigns gave them an ascendancy over their nominees, who granted them supplies as they wished.

The Tudors were not unpopular, so that in practice the sovereign really ruled. James I. and Charles I. had a

high opinion of their own dignity, personal, and royal, and despised the Tudor methods of governing by Parliaments, however formal that may have been. Perhaps less unscrupulous than the Tudors, certainly with a greater desire to rule and regulate the life of the nation, yet they wished to reign as despots where even the strong Tudor had appeared to submit. In other words, for a heavy but equable pressure was substituted an arbitrary and often foolish interference in certain directions. Hidden discontent there had been, and now it could burst out.

7. Political Ideas of Freedom

As time went on the idea of liberty had grown, especially as the name "Englishman" became a term of greater pride; and now all the better qualities of the Stuarts were lost sight of by men inspired with this passion. Freedom, political and religious, was demanded. The Puritans did their work, and the country profited by it after the Restoration. Charles II. and his successors ceased generally to use illegal methods of pressure, and gained their ends by corruption, either direct or hidden bribery. This, though morally far worse, was yet less offensive to the people at large, and in addition was less evident.

After the Revolution political and religious freedom became less pressing questions, but as their importance declined a new spirit grew up gradually, that of opposition to governmental interference in trade and industry. The new tendency had not immediate practical effects; down to the appearance of the *Wealth of Nations* it was overshadowed by the mercantilist principles.

8. Mercantilism

The general character of mercantilism has already been noticed. Though occasionally a dissenting voice was raised, mercantilism ruled industrial and commercial

policy during the seventeenth, and through the greater part of the eighteenth century. As home trade and foreign commerce increased in volume, the effects of mercantilism for good and evil became more pronounced, and between the years 1603 and 1760 its policy received expression in the corn and bounty laws, the protection of home industries, the navigation laws, and the colonial system. As was pointed out in the preceding chapter, the primary object of State regulation of industry and commerce was not to amass treasure, but to enhance national power by means of economic self-sufficiency and a favourable balance of trade. In judging the system care must be taken not to apply it to present-day standards. Economic, like political truths, are relative to time and place. In the seventeenth and eighteenth centuries, England was engaged in a long struggle for commercial supremacy with Holland and France, and a minute regulation of economic life was probably the best means then of increasing national efficiency. The political and commercial wars of this period, resulting from the dynastic ambitions of the European personal monarchies, subordinated economics to politics in a sense that is, happily, no longer possible. It must be remembered also, that the decay of mercantilism at the end of the eighteenth century was due less to the absolute truths of the *Wealth of Nations* than to the fact that under new conditions the system had outlived its usefulness.

The worst features of the system developed after the Whig revolution of 1688, when power was finally thrown into the hands of Parliament. Economic regulation, if attempted at all, should ideally be in the hands of a single wise man or a group of men. A large miscellaneous assembly, with most of its members ignorant of any one matter and nearly all open to bribery and corruption, and nearly all directly interested in the subjects with which they deal, was not an efficient substitute. Hence the

business of regulation was not always well managed, while the aims were not always above suspicion.

During the long reign of the Whig oligarchy its economic principle was to encourage only such commerce as reacted favourably on home industry, a form of mercantilism sometimes called Colbertism, from the name of its celebrated French founder, Louis XIV.'s Finance Minister. Thus the French manufactured products were kept out, while Portuguese wine, which did not interfere with an English industry, but which could be exchanged for English manufactured goods, was attracted here. In practice, however, the prevalent corruption made central regulation deleterious, and it was at this point that the system was attacked later by Adam Smith.

9. Protection of Industry

The mercantilist desire for self-sufficiency, and the belief in the necessity of regulating the course of production in the national interests by means of bounties and impositions has previously been referred to in connection with the corn laws. This principle is further illustrated in the protection given to home industries. Speaking broadly, trade was considered of advantage to a nation when it exported manufactured goods, or when it imported raw materials which it did not produce, or produced in insufficient quantities, to be worked up at home. The importation of luxuries, and of articles which supplanted the home manufactures, was severely condemned, though exception was made in the case of goods for re-export, and necessary munitions of war. The practical effect of this doctrine was that certain branches of industry were encouraged either by bounties or fiscal immunities, and others were restricted by tariffs and prohibitions. This principle, a part of Tudor policy—Burleigh had been its notable exponent—was developed by James I. In 1696 the Commissioners for Trade and Plantations were appointed

to consider means by which particular trades might be developed and other industries restricted. Some foreign goods were either absolutely or practically prohibited, as in the case of foreign cloth after the Restoration. Another method of encouragement was the removal of duties on raw materials imported for home manufactures, and the prohibition of the export of raw materials such as wool and leather.

The most important example of protection granted to the manufactured article is the case of woollen cloth. The cloth-makers wished to exclude, not only foreign cloths, but foreign textiles which competed with their industry. Out of this developed a long duel between the English cloth manufacturers and the East India Company, which resulted, in 1700, in the Government's prohibiting the use of finished silks and calicoes made in India and the Far East. In 1721, to protect the cloth trade still further, the use of even English printed, stained, or dyed calicoes was forbidden. In various ways attempts were made to stimulate the wearing of English woollen cloth in the seventeenth century. In 1622 a Commission was appointed to consider this problem. In 1667 it was enacted that the dead must be buried in woollen cloth. Some years later, 1678, persons were ordered to wear wool garments only, during certain months of the year; and in 1698, university graduates and members of the learned professions were required to wear gowns made from woollen cloth.

The protection system did not escape criticism. Its fundamental assumptions were challenged in different ways by North, Petty, Davenant,[1] and others. But these men were in advance of their age, and it was left to a later century to develop a broader and more enlightened view of international industrial and commercial relations.

[1] These pioneers of economic science all flourished in the second half of the seventeenth century. Sir Dudley North was a theorist in currency; William Petty, a man of very varied activities, wrote *Political Arithmetic*, and Charles Davenant *On the Balance of Trade*.

10. Navigation Laws

The Navigation Laws originated with Richard II., and were repeatedly enforced by the Tudors, though Burleigh and Elizabeth relied rather on more indirect means for promoting the shipping trade. The policy of the early Stuarts was vacillating, but during the personal government of Charles I. measures were passed restricting the movement of colonial tobacco to English ships and excluding foreigners from the Virginian trade. In 1651, a Commonwealth Navigation Act provided that goods from and to Asia, Africa, and America could only be carried in English ships, while goods from and to any European port could be brought either in the ships of this country or of the country actually producing the goods. Our great rivals were the Dutch, and they had built up great wealth on the carrying trade, helped by their ownership of the precious Spice Islands of the East Indies. Holland in Europe produced little, so that trade with Holland and its colonies had to be carried on in English ships.

The Act had a two-fold object: first to encourage our navy and our mercantile marine to make long distance voyages, and secondly to make sure that the former was not inferior to that of our nearest rivals, the Dutch. The Act was not altogether popular; it caused prices to rise, and was frequently evaded. In 1660 it was amended in several respects. It was ordered that the master of an English ship and at least three-fourths of the crew must be English; and that colonial trade must be restricted to ships owned in England, Wales, Ireland, or the colonies. Goods imported or exported in foreign ships were subjected to special duties; and the export of certain Colonial products, sugar, tobacco, indigo, etc., was prohibited, except to other colonies and England and Ireland.

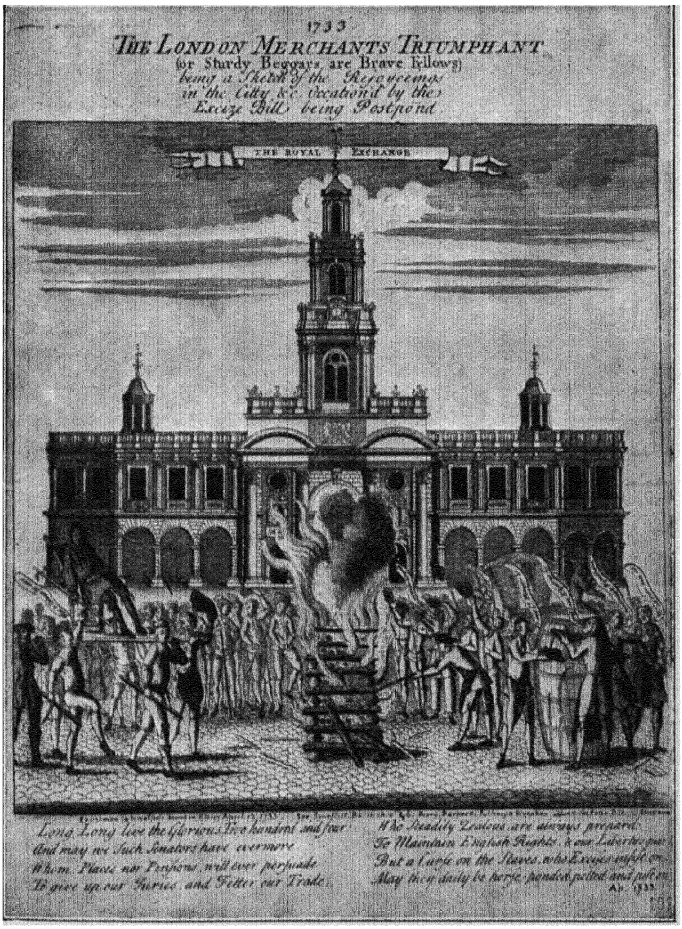
After the Restoration, these restrictions were extended in several ways. In 1662, in order to escape cargo duties, all ships were required to be built as well as owned in the

King's dominions. On the other hand, during the first half of the eighteenth century, pressure from the colonies caused many of the restrictions on the export of colonial produce to be relaxed.

The navigation laws certainly helped our shipbuilding, but this advantage was purchased at a heavy cost. It is very doubtful if they seriously injured our Dutch rivals; and they all but ruined our Baltic trade, as English-built ships were not adapted for that purpose. The clause in the Acts making it compulsory to buy foreign goods at their place of origin reacted against us, and shipbuilding materials and naval stores rose enormously in price. In addition to this, the exclusion of foreign competition was followed by a rise in the freights of English ships, and a consequent rise in the prices of English goods in foreign markets. Adam Smith, it is true, defended these laws on the grounds that security is of more importance than opulence; but the beginning of the eighteenth century, 1703, saw a very important treaty with Portugal. That country agreed to receive our cloth duty free in exchange for lowered duties on port wine. This was a sign that the more extreme mercantilist and nationalist views were on the decline.

11. The Excise and Walpole

Connected with the object of the Navigation Laws were various proposals for the establishment of free ports by the substitution of an excise for customs duties. The question of taxation was a burning one in the seventeenth century, largely because of the unequal incidence of the direct taxes. During the Civil War, largely under Dutch influence, an excise duty was imposed on tobacco, wines, spirits, beer, and other commodities of general consumption, and defended as the most convenient method of laying a tax upon the whole people. Walpole attempted to use the principle of excise as a means for the establishment of free



BURNING WALPOLE'S EFFIGY AFTER THE WITHDRAWAL OF THE EXCISE BILL IN APRIL 1733.

ports. In 1733 he brought forward a scheme to substitute excise duties on wine and tobacco when taken out of bond[1] for consumption, for customs duties at the ports. He had previously reduced the duty on tea paid on importation, the full duty being paid only when the tea was removed from the warehouse for consumption. Walpole hoped by this measure not only to reduce smuggling, but to make London " the world's mart." But the opposition was so violent—an outcry, partly factious, partly popular, was raised against the invasion of the Englishman's shop or home by inquisitorial excisemen—that the scheme, in spite of its obvious advantages to shipping and trade, was withdrawn. Although the system of free ports did not materialise, the customs duties on goods re-exported were modified; the greater part of the duties being returned when the goods were re-exported. This was a solid gain for the shipping trade, though it aroused opposition from the manufacturing class which supposed that this concession was made at its expense.

12. The Colonies

Mercantilism in relation to the colonies, sometimes called the Old Colonial System, persisted almost unchallenged down to the American War of Independence. It was universally held at the time, but as a matter of fact was less drastically put into practice by England than by other colonising Powers. The fundamental principle was that the relation between a colony and the Motherland is that between a country estate and its private owner. From this fundamental principle issued a number of consequences, the most important of which was that the colony should not be allowed to engage in any form of production which might injure the industries of the Motherland. In the case

[1] *I.e.* out of the warehouse, where they are kept " in bond " until the importer takes possession.

of a country like England, the theory was accepted that the colony should confine itself to the production of such raw materials, and foodstuffs, as could not be produced at home, or at least in sufficient quantities, and provide in return a market for manufactured goods. Foreign competition was excluded in both theory and practice, partly on the ground that the colony was a national estate, and partly on the fact that in most cases the colony was developed initially, at considerable expense, by companies of individuals working on capital privately subscribed. Some guarantee that the fruits of the enterprise would not be appropriated, in part at least, by the foreigner, seemed therefore necessary.

On the other hand, the colony derived certain advantages, which, in the early stages of its history were very definite. The Mother-country provided the colonies with its first settlers and capital, furnished it with a privileged market for its products, maintained peace within, and defended it from foreign aggression without. In the seventeenth and eighteenth centuries, when English colonial settlements were in constant danger of attack from Spain, Holland, and France, the benefit derived from the English connection was real and definite.

To what extent these advantages were an adequate compensation for the restrictions imposed by the Old Colonial System is not easy to determine. The American Colonies fell naturally into two distinct classes; those in the south, Virginia and the West Indies, exchanged raw cotton, sugar, and tobacco for English cloth and household utensils, while north of Virginia the staple products were cattle and grain in which England was then self-sufficient. For that reason, the New England Colonies were esteemed of little value until the shortage of timber in England in the eighteenth century made them desirable as sources of supplies of masts, pitch, turpentine, hemp, and flax, necessary as shipping and naval stores.

The wide difference in natural resources made the restrictions more irksome in New England than in the West Indies. This was further accentuated by the fundamental difference in the character of the settlers. Those in Virginia and the West Indies, were a slave-owning planter aristocracy; those in the north were descendants of political and religious refugees who entertained for England, feelings not dissimilar from those of the Irish who colonised the Mississippi basin in the middle of the nineteenth century.

As these colonies developed their resources, it became more and more difficult to restrict their production to raw materials and foodstuffs, and before the end of the seventeenth century England was viewing with alarm the development of the cloth and iron industries in America. Measures were accordingly passed prohibiting the export of American-made cloth either to England, or from one colony to another; and although the production of American pig-iron was permitted on the ground that it was a necessary raw material for English industry, the erection of rolling mills and steel furnaces was forbidden in the colonies.

The connection between the Navigation Acts and the old Colonial System is obvious. How far the enactment that colonial produce could only be exported to foreign countries after passing through English ports, and in English ships, constituted a practical grievance is difficult to determine, as in practice it was constantly evaded, and an enormous smuggling trade developed between the seaboard States of America and the West Indies.

Walpole, who to some extent was a pioneer of Free Trade ideas, was inclined to relax restrictions, but his policy was not continued. It was Grenville's attempt to put down this illicit traffic that was one of the causes of the American revolt which gave a mortal blow to the old colonial system.

13. Foreign Trade

By the end of the reign of Elizabeth, English commerce had become world-wide. Its origins in the Merchants of the Staple and the Adventurers, and its development in Tudor times have been noticed elsewhere. In the seventeenth century foreign trade expanded rapidly, and although individual traders were still numerous, for several reasons there was a strong tendency towards concentration into chartered companies.

The reasons for this concentration are not far to seek. In the seventeenth century it was necessary for the overseas trader to undertake many functions now performed by the State, in particular the obtaining of trading concessions from foreign countries, the protection of overseas trading stations, and above all, the repression of piracy. Individual trading, even in the seventeenth century, was difficult and dangerous, hence wealthy corporations had a natural monopoly.

Chartered companies were of two classes: the regulated company, in which each member traded on his own capital subject to rules prescribed by the corporation, and the joint-stock company, whose profits or losses were distributed among the members as shareholders. The chief regulated companies were the Merchant Adventurers, and the Eastland, Russia, and Levant Companies. The principal joint-stock companies were the East India, the Africa, and the Hudson Bay Companies. Each company had the monopoly of a certain territory, and "interlopers" were punished. In many cases, the East India Company for example, the regulated company was gradually transformed on a joint-stock basis.

14. Merchant Adventurers

The early history of this, the greatest of the regulated companies, has previously been detailed. Down to 1600 its energies were employed mainly in resisting foreign

rivals, the Antwerp Merchants and the Hanseatic League. James I. granted it a monopoly of the English cloth trade with Germany and the Netherlands in 1618, and its privileges were maintained by Charles I. in spite of the opposition of the Bristol clothiers. During the Civil Wars, the Company secured the good-will of Cromwell by advancing money to Parliament, but after the Restoration, its fortunes began to wane. The Dutch Wars severely hampered its trade and its monopoly was gradually broken down. It continued to exist at Hamburg until the nineteenth century, but after the defeat of Prussia at Jena (1806), the French troops occupied Hamburg and forced the Merchants to surrender their privileges and rights. In 1808, the factory was abolished, and the company dissolved.

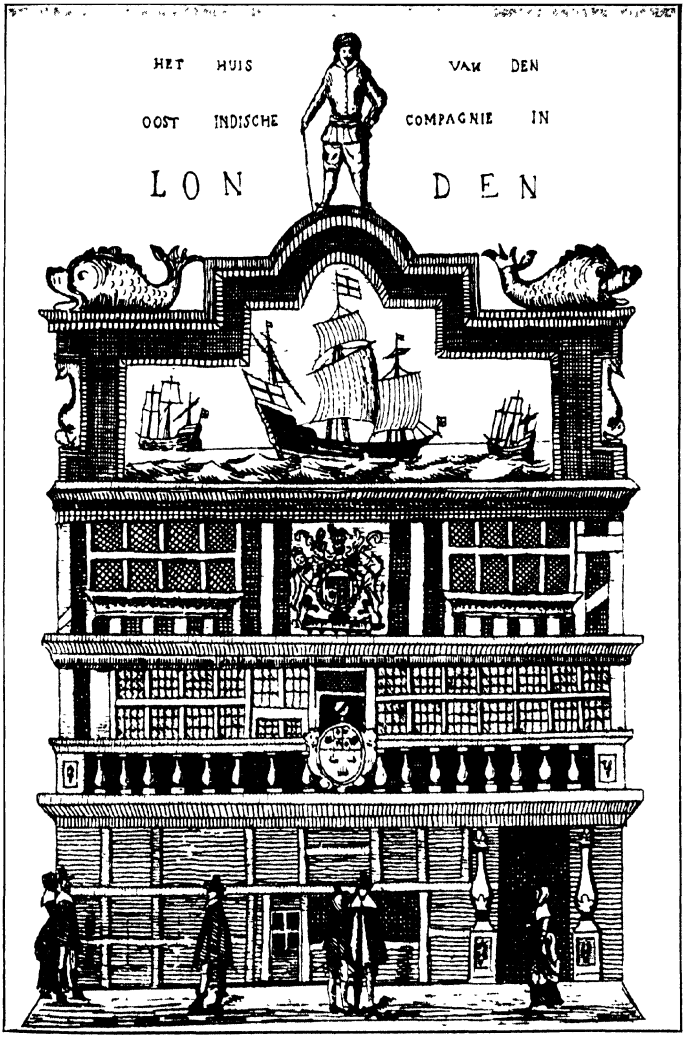
The Company was governed autocratically by the Governor, elected annually, his deputy, and 24 assistants.

15. East India Company

The East India Company, founded in 1600, was the greatest of the joint-stock companies. It was intended originally to trade with India and the East Indies,[1] but the successful rivalry of the Dutch in the latter region led the Company to confine its attention to India. Factories, *i.e.* settlements of the Company's " factors " or agents, were established at Surat (1612), Madras (1639), Bombay (1662), and Calcutta (1686). Early progress was hampered by native opposition and European rivals, and extension of trade was only possible after this opposition had been subdued. Hence the Company gradually became a great political power, having its own army and administrating vast regions.

In the eighteenth century Clive increased British power by successful wars against the natives and the French. After 1773 the English Government began to exercise some

[1] As the term " East Indies " included India, the islands now known as " East Indies " were generally called " the Spice Islands."



THE FIRST INDIA HOUSE.
From an Old Print.

control over the management of the Company, and in 1858 its powers were formally taken over by the Crown.

Down to the middle of the seventeenth century the Company traded on a regulated basis. Capital was subscribed at first for one, and later, for several voyages. The regulated principle, however, was unsuited to the political circumstances of the East, and in 1657, the Company was reorganised on a joint-stock basis.

At home, the Company was viewed with suspicion, as the nature of its trade conflicted with mercantilist principles. It was therefore attacked on the ground that it imported products competing with home manufactures, and that it exported bullion. Against these charges, the Company argued that most of its imports were subsequently re-exported, and that the favourable trade balance obtained in this way drew into England a surplus of bullion over that originally shipped to India.

After the Revolution of 1688, numerous attempts were made to break down the Company's joint-stock monopoly. Aided by the Whig interests in Parliament, the "Interlopers" founded a rival New Company, but the Old Company, stoutly defended by its famous Director, Sir Josiah Child, was strongly entrenched enough to resist the attack. The final result was that an amalgamation was effected in 1709.

16. Other Companies

The other companies merit only a passing notice. With the exception of the Hudson Bay Company the most important ones, the Eastland, Russia, Africa, and Levant Companies originated in the commercial expansion of the age of Elizabeth. Both the Russia and Eastland[1] Companies had stormy careers in the seventeenth century; the Russia Company being subject to the caprice of the

[1] *I.e.* the regions bordering on the Baltic: the name survives in Esthonia (German *Esthland*).

Tsar, while the Eastland Company was overshadowed by the Merchant Adventurers. The Levant Company provides an instance of a transition from joint-stock to regulation, and unlike the other early companies it had a democratic organisation. During the seventeenth century it suffered much from encroachments by the French and other companies. The Africa Company was founded originally to supply England with gold and ivory, but after the Restoration it became the centre of that West Indian slave trade first inaugurated by Sir John Hawkins. It appears to have suffered more than the other companies from attacks by the Interlopers, and it gradually languished until its dissolution at the beginning of the nineteenth century.

The Hudson Bay Company, founded by Prince Rupert —whence the early name of Rupertsland—in the reign of Charles II., presents no special features. It was, and is, principally concerned with the fur trade: its trappers are familiar heroes of Arctic adventure. Its early history was a struggle for existence against the French, and after that danger was removed by Wolfe's conquest of Quebec, it suffered the usual attacks against exclusive monopoly of trade. Alone of the old chartered companies, it still exists at the present day.

17. South Sea Company

The South Sea Company presents features differing widely from those of the above companies. Its initial object was the same, but to acquire exclusive right of trading with the Spanish coasts of South America it made proposals to the Government to buy up a part of the National Debt and to give its own Stock in exchange. Those who held Government annuities were invited to exchange them for South Sea Stock. The business of the Company was not unsound, but its promises were absurd and delusive. A rage for speculation seized the country;

THE SOUTH SEA BUBBLE, 1721.

The craze for speculation in George I.'s reign was followed by the crash of many companies.

every one was filled with an insane haste to grow rich and the consequence was that the stock was greatly inflated in price. All kinds of foolish companies were started—to import asses from Spain, to extract silver from lead, to introduce perpetual motion; one promoter, with sublime impudence, invited subscriptions to a secret undertaking which shall be made public hereafter. Most of these companies were without a charter, but the publicity of their exposure caused a panic in which the South Sea Company itself collapsed. South Sea Stock fell from £1000 to £175, and thousands were ruined. The collapse gave a great shock both to public credit and the principle of joint-stock enterprise, as an Act was passed immediately which declared companies without a charter to be illegal, and as the expense of obtaining a charter was considerable, the joint-stock movement was discouraged. The bursting of the South Sea Bubble and the almost contemporaneous failure of John Law's Mississippi scheme in France were the first great speculation crashes or financial crises of modern times.

18. Money and Balance of Trade

We have emphasised in other sections that it is inaccurate to suppose that the mercantilists identified money with wealth, at least not in the seventeenth century, though it is true that mercantilism allowed various shades of opinion. It has also been mentioned that the international insecurity of the sixteenth and seventeenth centuries caused a high value to be placed on the precious metals for military purposes. But there was another reason why the mercantilists attached high importance to the bullion supplies of the country. So long as credit instruments and paper currency were little developed, a drain of treasure reflected serious consequences on prices. In earlier times the device adopted to prevent a drain of bullion was to place an embargo on the export of precious metals. By the seventeenth century,

the practical futility of this was recognised, and out of this consideration developed the famous mercantilist doctrine of the balance of trade. As was noticed in the brief history of the East India Company, the more enlightened among the Mercantilists supported the export of bullion so long as it proved the means of increasing our trade balance elsewhere; indeed, this was the thesis of Mun's famous work.

This regulation of the supplies of precious metals through the balance of trade was the fundamental of commercial policy throughout the seventeenth and early eighteenth centuries. In practice, the theory raised difficulties. With the resources then available, it was difficult to measure England's position with respect to her foreign trade as a whole; it was quite impossible to measure it accurately with reference to any particular country.

The theory, too, did not escape criticism even on theoretical grounds. That clear-sighted eighteenth-century observer, David Hume, used the Quantity Theory to show that the fall in prices resulting from a drain of bullion would attract gold from abroad, and so reverse the flow. It must be remembered, however, that, under seventeenth century conditions, it would have been dangerous to leave industry to the slow play of natural forces; again, in those days, Governments placed every restriction possible on movements of gold.

The most serious consequences of the trade balance theory was that it led to arbitrary interference with the natural course of trade by means of high tariffs.

19. Recoinage

The beneficial effects of Elizabeth's recoinage had worked themselves out by the middle of the seventeenth century. Charles II. made coinage free, and the export of gold and silver was legalised.

This step had beneficial results, but it was probably an

important cause of later troubles, when silver was exported. The new system made for instability.

Measures were taken to prevent export, but they failed. Again, under William III. splendid coinage was introduced, but the old coins were not called in, with the inevitable result. It was not gold, now, but silver that was exported, gold being overvalued.

These difficulties were met by the Recoinage Act of 1696; the work took three years to complete. At first, it was suggested that the nominal value of the shilling should be raised, as in former times, when the same effect was produced by lessening the weight of the same coin. The philosopher John Locke showed that an honest coinage would pay the country in the end.

Over £2,000,000 were expended by the government on the scheme, and there was a serious inconvenience for some time until the coinage had reached its normal state, but the final effects on industry, on confidence, on the credit of the country, and on the stability of the exchanges were incalculably good. The reform was carried out by Newton.

To prevent the export of silver, the value of the guinea had been progressively reduced, and now it was made 22 shillings. This was still too high, and in 1717 it was finally changed to 21 shillings, and even then silver was exported to a slight degree. Hence the process still continued; it was profitable to coin guineas, as their face value in silver was higher than that of bullion, while uncoined silver was worth more than the underrated silver coins. Gold coins then became more abundant, and it was natural that they should be looked upon as the standard; thus the way was prepared for the single gold standard. The fall in the value of gold was due to the opening up of new mines, which had increased the supply and hence lowered the price. This lasted until about 1760, when new sources of silver had been opened up, while gold production declined.

20. Double Standard

So far, England had possessed a double standard. In theory, gold and silver circulated side by side, while their respective values were fixed by law. The result of this "Bimetallism" was instability: first one, then the other metal was exported as it became undervalued. The turn of the tide came about 1760. Gold was made the final single standard by a series of regulations. Silver became less important by a regulation (1774) limiting its use as legal tender to £25, though it was still payable to any amount by weight, at about its market value. In 1798 the coinage of silver (representing a legal standard) was forbidden provisionally, and the prohibition became permanent in 1816.

21. Credit and Banking

Between the time of Elizabeth and the South Sea Bubble at the beginning of the eighteenth century, the joint-stock principle made great progress. It originated probably with the buccaneering expeditions of Drake and Raleigh, and under the Stuarts developed rapidly. Capital now began to be invested in industry, and profits made in one trade began to be invested in another. Part of the original capital of the East India Company came from profits gained in the Levant trade. As was shown in the previous chapter, captains of industry began to appear in Tudor times, and under the Stuarts instances of large scale and speculative enterprise were frequent. Among the capitalist undertakers of the seventeenth century may be cited Sir Josiah Child, Dudley, and Ambrose Crowley. Under the Stuarts, the use of book credits grew rapidly, and in 1698 and 1705 inland Bills of Exchange and Promissory Notes received legal sanction. These changes not only economised the use of metallic money, but allowed inland bills to be discounted.

The increasing use of capital brought the problem of

usury again to the front and the Stuarts established a legal rate. This recognition of interest made modern banking possible. English banking originated with the Goldsmiths, who as early as Elizabeth's time were dealers in foreign money, and whose strong-rooms were a great convenience to merchants and gentry during the troubled days of the Civil Wars. Deposit and loan banking developed later here than on the Continent, and it was not until the time of Charles II. that the Goldsmiths began to pay interest, but out of the receipts issued to their depositors developed the cheque and the bank note.

Both Cromwell and Charles II. borrowed freely from the Goldsmiths, and it was the suspension of his payments or "Stop of the Exchequer" by Charles II. in 1671 that started the train of events which led to the foundation of the Bank of England.

22. The Bank of England

The chief factor, however, was political. William III. had spent much money in conquering England, and his wars were not yet over. The Tory Party was in sympathy with James II., so that William had to rely absolutely on the Whigs, rich and powerful traders. Borrowing was difficult because the Government was thought to be unstable, but the Whigs were compelled to support William because a Stuart restoration meant ruin. Hence the success of the scheme of William Paterson (1658-1729).

In 1694 a group of rich men lent £1,200,000 to the Government at an interest of 8 per cent., and in return they received a charter. At the same time a funded debt (our national debt) was formed, so called because there was no promise to repay the loan at any time; a "fund" in this sense is a portion of revenue set aside for regular payment of interest for a debt. New duties on liquors were the portion of revenue originally "earmarked" for interest payment. A loan resting on the Parliamentary

security of the nation was clearly the safest possible form of investment, and soon became the recognised means of financing wars. It was simple, easy, and convenient, and shifted the burden to future generations who would partake in the advantages of successful war; but it encouraged extravagance, and it has also often been attacked on the ground of encouraging the growth of a parasitic class of financiers and stockholders or *rentiers*.

THE OLD BANK, LOOKING FROM THE MANSION HOUSE.
From a Print of 1730.

The Bank was very closely allied with the Government, and became almost a State bank; even in the nineteenth century, when, through the development of other banks, it had lost its monarchial position, it still retained its status. This latter hindered the growth of large provincial banks where they were then required, while English banking was made dependent on the follies of the Government.

The bank was the second great European Bank of issue. It could issue notes up to the value of its funded debt. Such notes had long been known on the Continent, especially in Holland, in the form of banker's receipts, and, as we have seen, the goldsmiths issued similar paper. In Rotterdam these receipts passed from hand to hand, because they could always be exchanged for the valuables deposited. Now the Bank issued notes against money; anyone who brought them to the Bank could have them exchanged. The condition of successful issue is that the amount of gold held shall be enough to cover all likely demands. Further, if the reserve is known to have dwindled, a panic ensues, the public no longer place confidence in notes, and they are brought for payment. To-day, notes are looked upon as perfectly secured; then they were new and suspect.

The charter also allowed the Bank to deal in Bills, and to lend money for trade purposes, but not to engage in commerce.

23. The Bank's Monopoly

In 1697, after a crisis in the preceding year, the Bank received an important privilege. No joint-stock bank could be formed; independent banking was limited to private persons. In 1708, it was enacted in essence, that no combination of more than six persons could do banking business during the continuance of the Bank of England. A later Act of 1800 confirmed these statutes. Thus the Bank obtained a monopoly of joint-stock banking.

As the Bank was political in character, opposition was great and not always reasonable. The directors had little experience, especially in note issue, and were often in difficulties. The Goldsmiths were bitter opponents, yet the Bank preserved continuity.

The economic services rendered by the Bank of England in the first half of the eighteenth century were very definite.

By giving depositors a sense of security previously lacking, the accumulation of capital was encouraged, and the interest on state and business loans was reduced. By discounting foreign bills at more reasonable rates the Bank exercised beneficial effects on the foreign exchanges; it also assisted to enlarge the currency and widen the basis of credit.

Though the founding of the Bank of England prevented the development of joint-stock banking for more than a century, private banking continued. As the Bank did not establish provincial branches wealthy merchants in the provinces began to open accounts in London and to develop a banking business among their customers in much the same way as the Goldsmiths had done. Provincial banking did not develop on a large scale until after 1760, but before that date, Smith, a mercer, had founded the Nottingham Bank; Wood, a chandler, had opened the Old Gloucester Bank; and an iron-master, Lloyd, and a linen-draper, Barclay, had established the concerns which still bear their names.

24. Industry

The first stages of the capitalistic domestic system originated in the sixteenth century. With the accession of the Stuarts, the domestic system on a capitalistic basis developed rapidly, and from the Restoration to the Industrial Revolution it was the dominant form of industrial organisation. The dependence of capitalism on the specialisation of processes in industry, and the gradual evolution of the market, is explained in every textbook on Economics. It was mentioned in the last chapter, that, among the various tendencies in industry during the fifteenth and sixteenth centuries, the tendency to minute differentiation of process on the one hand, and that of the integration of the early stages under the control of the finishers of the product on the other, were very marked. The second tendency, which to some extent was necessitated by the

first, postulated centralised control, a fundamental of capitalism, and gives us a partial explanation of the rise of the Livery companies, and individual capitalists like Winchcombe and Stump, in the Tudor period. It was, however, the widening of the market that made gild theory no longer tenable; the gild regulations presupposed a limited, regulated production, and direct contact between producer and consumer. They were inadequate to the problems arising from the buying of raw materials, and the disposal of the finished product on a national, international, and speculative market. These functions demanded private capitalist enterprise, and it was the development of this system on a domestic basis that forms one of the main contributions of the seventeenth century to economic progress.

Though the domestic system, that is, the actual performance of the different operations in the homes of the workers, became the dominant form of the industrial organisation of the seventeenth and eighteenth centuries, it was not universal. Recent research has shown that survivals of earlier forms persisted everywhere, and that in certain trades, textiles and metals, instances of the concentration of workers under the roof of the master were becoming frequent. In other words, the factory system is older than the application of steam-power to the textile inventions of the eighteenth century.

25. The Domestic System

The woollen manufacture was concentrated mainly in the West of England and Yorkshire, but the organisation in these places differed in several respects. In Yorkshire, the clothiers worked up their own materials on their own looms and marketed the product weekly. They were not entrepreneurs in the nineteenth century sense; neither were they wage earners, because they sold the product of their labour, not the labour itself, a fundamental difference.

In Yorkshire, the domestic establishments were small, a master, assisted by several journeymen and apprentices. The distinction between master and journeyman was not, as to-day, fundamental; an upward transition was natural and regular, for little fixed capital was required, and raw materials could be obtained on credit.

Opinions differ on the closeness of the connection between the wool trade and agriculture in the north of England. It has often been asserted that the main cause of the evils of the transition period of the Industrial Revolution was due to the divorce between these occupations, and there is no doubt but that in many cases before 1760, agriculture was a subsidiary industry. But, as a rule, farming was confined to the master clothier, because as industrial pressure became intensified, the journeyman had neither energy nor leisure necessary for the cultivation of small holdings.

The system was far from static. Before the end of the eighteenth century, vital changes had been effected. The apprenticeship system, under which a youth received an industrial and moral training in the house of the master, was in process of disintegration. The line of demarcation between master and man, scarcely recognisable in Stuart times, had become hard and fast. A definite artisan class, dependent wholly on industrial earnings had developed. Master and journeyman were no longer of the same class; social distinctions had appeared.

The master was not the simple clothier of the seventeenth century, for the industry had become dependent on the middleman. The small clothier purchased his wool on credit, and sold the partly-finished product to the cloth merchant in the Cloth Halls of Halifax, Wakefield, and Leeds. The undressed cloth was finished by the merchant who thus combined industrial and trading functions, and during the course of the eighteenth century he extended the latter at the expense of the clothier, and gradually superseded him.

In the West of England cloth trade capitalism developed earlier and more rapidly than in Yorkshire. Even in the seventeenth century the large-scale production had obtained a firm foot-hold, the workman had become dependent on the master with respect to tools, and establishments employing hundreds of hands were not uncommon. Contrary to the Yorkshire practice the West of England clothier placed the finished product directly on the market, either as exporter, or through London agents; and the result of these peculiarities was that phenomena, associated with the Industrial Revolution in Yorkshire, instability of employment, exploitation of children, and the decay of apprenticeship, were familiar to the West of England in the early eighteenth century.

In comparison with the cloth trade the other textiles were relatively unimportant until after 1760, though the silk industry received a stimulus at the end of the Stuart period through the immigration of Huguenots or French Protestants after the Revocation of the Edict of Nantes. (1685.)

26. Huguenot Immigrants

England's indebtedness to skilled foreign immigrants since Alfred the Great first encouraged alien workmen to plant new industries here is difficult to measure. The French Huguenots were industrious and skilled workmen, and were welcomed by the English Government, as before the days of machinery, skilled labour was the sole means of improving the industrial arts. These new immigrants planted the silk trade at Spitalfields, the manufacture of sailcloth at Ipswich, and calico-printing at Richmond in Yorkshire. They also effected improvements in paper-making, and developed the linen industries of Scotland and Ireland.

27. Coal and Iron

Coal was used in London as early as the reign of Edward III., but it did not begin to challenge the position of wood

as fuel until the days of James I. During the seventeenth century, according to Defoe, progress was so rapid that in 1725, around Newcastle alone, 30,000 men were engaged in raising coal. Coal-mining affords an example of early capitalistic enterprise on a large scale, for with the poor scientific resources at the disposal of the eighteenth century, pit-sinking was a highly speculative venture.

The great difficulty of the early days was the draining away of underground water. Various devices were tried but only with partial success. In the north, chain pumps, worked by horse, or tread-wheels, were common, but their working expenses were heavy. Deep mining did not become a paying proposition until after the invention of the steam engines of Savery, 1698, and Newcomen, 1712.[1]

The inherent tendency of large-scale capitalistic enterprise towards combination is illustrated by the early history of the coal trade. Even at the beginning of the seventeenth century the Hostmen of Newcastle, who controlled the London coal trade, were organised for the purpose of controlling output, and regulating prices and wages. The consequence of this was that the London distributors were forced to combine for self-protection, and by 1760, practically every grade of London Middlemen handling Newcastle coal was organised in associations to protect their market.

The steady rise in the price of coal through the seventeenth century attracted repeated attention in Parliament, and several Acts were passed declaring illegal combinations in restraint of the coal trade. The small success of these measures, however, only illustrates the futility of attempting to control by legislation price changes that depend mainly on other factors than human volition.

Iron smelting was important in the Weald in Roman Britain, but by the sixteenth century, the destruction of

[1] For details, see Part II., Chapter II , Art 1.

the forests of Kent and Sussex, and the restriction on the use of timber for fuel drove many iron-masters to migrate to the Forest of Dean. But the industry was by no means localised. Even in the eighteenth century iron works existed in many counties of England and Wales, but the growing scarcity of fuel gradually caused many to close down.

The early iron industry had to overcome two grave difficulties—the problem of fuel, and the technical difficulty of smelting iron ore with coal on account of the presence of sulphur. In 1621, Dudley claimed to be able to smelt good iron with coal, but serious progress was not made until Abraham Darby opened his works at Coalbrookdale at the beginning of the eighteenth century.

Lack of suitable fuel thus placed serious restrictions on the production of English bar iron before 1760. In addition to this, foreign bars, with the exception of the best Swedish quality, had a lower cost of production than English, hence we imported large supplies from Sweden, Russia, and Spain.

Like the Elizabethan brass and copper industries, the smelting and forging of iron was organised very early on large-scale capitalistic lines. Mr. Lipson has shown clearly that even in the seventeenth century the iron trade had a tendency to integration usually regarded as modern. The iron-master frequently extended his operations both in the direction of controlling the sources of his raw materials, and in that of turning his iron into manufactured goods. In the early eighteenth century the Blackbarrow Company owned mines, woods, forges, and furnaces; it produced both raw iron and manufactured goods. Another example of an integrated business is that of Ambrose Crowley, the greatest iron-master in England at the end of the seventeenth century.[1]

[1] Lipson, *Mercantile System*, II., p. 165

The tendency to combinations to regulate production and prices noticed in the coal trade was just as evident in the early iron industry. Doubtless the speculative nature of these undertakings, and the expensive fixed capital involved rendered measures of self-protection necessary even in the infant stages of these industries.

Large-scale capitalistic production in the iron trade was confined mainly to the production of bar iron. The manufacture of iron into usable goods was conducted for the most part on the domestic system, and in the cutlery trade, the small, independent master, like the Yorkshire clothier, persisted well into the eighteenth century. The general tendency, however, was to reduce the craftsman to dependence on a capitalist middleman who supplied him with materials which he worked up at home. The nail and chain industries round Dudley in the Black Country illustrate both the procedure and the possibility of exploitation of the domestic worker. Long hours and scanty remuneration ante-date the Industrial Revolution.

During the seventeenth and early eighteenth centuries the cutlery trade made rapid progress round Sheffield, and the district between Birmingham and Wolverhampton became the centre of the Kingdom for the manufacture of light iron goods. But until after 1760, England lagged behind the Continent in the Industrial Arts, and what progress was made was due in no small measure to the immigrations of skilled workmen from France and Flanders in the reigns of Elizabeth and Charles II.

28. The Signs of Coming Changes

This outline of the organisation of industry and commerce between 1600 and 1760 suggests that the so-called Industrial Revolution was not a revolution in the customary sense of the term. It was certainly not a new order suddenly established by the inventive genius of a few individuals of a single generation. A definite and important

turning-point it certainly was, but every phase of it had antecedents in the seventeenth, if not in the sixteenth century. Private capitalism, large-scale production, an industrial proletariat, and the substitution of individual initiative and freedom for centralised regulation and the rule of custom had reached a stage of development when the application of steam power to the eighteenth-century inventions made the factory system inevitable.

Historical materialism, like all theories that over-simplify social causes, is an exaggeration, but it is not without significance that its modern form is largely the result of investigation into the causes of which the factory system of the early nineteenth century is the result. These causes were not altogether isolated phenomena. Changes in the one occasioned changes in the others, which, superficially at least, bear the impress of necessity. Even on a moderate view the most significant feature of the periods under consideration is not sudden change but the thread of continuity running through their economic history.

29. The Rise of a New Spirit

Another change requires further notice. Fundamentally, the centralised industrial and commercial regulations of the Tudor and Stuart monarchies were, as has been shown elsewhere, but a particular aspect of the mediaeval belief in the organic nature of society. During the seventeenth century this conception of society came in conflict with a new spirit. This spirit was Puritanism, an offshoot of the religious Reformation of the preceding century in Germany. Now Puritanism, by relating the individual directly to God, removed the centre of interest from the group, the essence of mediaeval theory, to the individual; hence, Puritan political publicists developed a theory of the state founded on the voluntary contract of free and independent individuals endowed with natural rights, which the government had no moral right to violate.

The economic consequences of this state theory, obviously incompatible with Mercantilism, developed but slowly. The transition from political to economic individualism was not formally made until after the rise of the Physiocrats in France towards the middle of the eighteenth century, and of Adam Smith in England, somewhat later.

But although economic individualism did not gain the upper hand until the close of the eighteenth century, its foundations were laid in the Puritan opposition, based on natural rights, to the monopolies and patents granted by Charles I.

30. Monopolies

Allusion has been made elsewhere to the storm in Parliament over monopolies in the last days of Elizabeth, but both James I. and Charles I. continued the Burleigh tradition of fostering new industries by the granting of exclusive privileges to groups of individuals. These patents, such as Cockaynes for dressing of cloth, the production of soap and salt, etc., were granted, in theory, to further the public interests; but in practice they were opposed on the ground of inalienable natural rights, and a breach was made in the walls of mediaeval theory. The breach once made, was widened slowly and imperceptibly until the whole edifice collapsed in the later eighteenth century.

31. Migration

During the sixteenth and seventeenth centuries there was a good deal of migration from one part of the country to another. Iron workers left the south for the Forest of Dean, and wool workers migrated from East Anglia to West Yorkshire. Skilled workers in the iron trade were far from immobile in the seventeenth century, for Crowley drew the labour for his iron works in the north mainly from London and south of the Thames. This mobility must not be exaggerated. After the Restoration, the Settlement Law severely restricted the movements of the

poor and destitute; but an old custom had been breached, and it is not improbable that greater freedom of persons assisted freedom of ideas.

32. Poor Law and Labour Legislation

The Poor Law problem did not end with Elizabeth's Act of 1601. Indeed, it is easy to exaggerate the immediate effects of this Act, as, even as late as 1630, many parishes had not attempted to levy a poor rate. The first two Stuarts made few innovations, they were mainly concerned with consolidating the principles of 1601, but after the Restoration an Act of Settlement was passed in 1662 which had a vital effect on the position of the destitute throughout the country.

Under this Act, the local authorities were given power to deport any new-comer to the parish, occupying a tenement under the annual rental of £10, back to the last place of legal settlement. The Act was specially designed to check the migration of the destitute to London, but where it was rigidly enforced the consequences were unfortunate; they practically restricted the unskilled labourer to the place of his birth, and made independent effort to improve his position, difficult, if not impossible.

In practice it was possible to obtain a settlement, apart from buying a house or paying a rental of £10 per year, by service, or by apprenticeship, but the system was open to grave abuse. To evade the difficulty of a labour shortage in harvest times, migration was allowed for limited periods on certificates, and on condition that the holder returned to his settlement when his work was completed. After 1700, the Law gradually became obsolete, but it was not formally repealed until the beginning of the nineteenth century.

During the second half of the seventeenth century, Poor Law expenditure was, as is the case to-day, a burning question. Sir Matthew Hale and John Locke advocated the building of workhouses for the express purpose of

employing the poor on profitable work. This theory that the workhouse should be a means of employing pauper labour to profit, and not, as in our day, a device for relieving destitution, enjoyed great vogue at the end of the seventeenth century. It was for this purpose that the workhouses at Bristol and Worcester were founded in 1696 and 1703 respectively. Unfortunately, the theory, laudable as it was in the abstract, appears to have displaced independent labour in the places where it was tried.

The most important Act of the early eighteenth century was that of 1723, which aimed at making the workhouse system general throughout the country. Churchwardens and overseers in any parish, with the consent of the inhabitants, were empowered to erect a workhouse, and refusal to enter was deemed a disqualification for relief.

Between 1723 and 1733 numerous workhouses were erected up and down the country, but after the year 1750 the movement declined, and the old complaint was heard that too much money was expended in relief, and that too little attention was paid to the provision of work for the poor and the training of paupers in habits of industry. Like the Tudors, the Stuarts approached the problem of destitution by indirect as well as by direct means. Most labour legislation, and many of the measures designed on the surface to protect home industries, were really intended to supplement the Poor Laws. The prohibition of the imports of foreign buttons and lace; the restrictions on the importation of live cattle; the prohibition of the export of wool and fuller's earth; the attempt to increase the consumption of English-made cloth in the reign of Charles II. had, for ultimate object, the limitation of Poor Law expenditure by means of increased employment.

33. Trades Unionism

The rise of a new spirit, which was destined later to develop into a doctrine of economic individualism, has

already been noticed. Even in the second half of the seventeenth century, most of the Tudor measures relating to technical training and labour conditions had ceased to be generally enforced. The consequence of this decline in State responsibility for the conditions of labour was a movement towards concerted action on the part of the workers to protect their economic interests. For this, there were precedents stretching back to the craft gilds of the Middle Ages, but it is incorrect to regard the gilds as the ancestors of trade unions.[1]

But although there is no real evidence of the existence of a trade union in the modern sense before the eighteenth century, spasmodic attempts at combined action to remedy particular grievances occurred as early as the time of James I., when the Nottingham shoemakers attempted to raise their rates of wages. Again, in the reign of Charles II. the employees at the Portsmouth Dockyard attempted to remedy certain trade grievances by means of concerted action, and in the closing years of the century there were several conflicts between employers and workmen in London over the right to make use of this weapon. The early combinations of the seventeenth century, however, were not related solely to industrial needs; they aimed also at the establishment of friendly benefits, and down to the end of the eighteenth century these two motives for combination were very closely associated.

The definite origins of the trades union movement may be traced to the sick benefit clubs that sprang up among the West of England cloth workers at the beginning of the eighteenth century. These clubs were attacked by the masters on the ground that they were but a cloak over conspiracies in restraint of trade, and the Parliamentary interests of the employers was sufficiently strong to secure the passing of a combination Act in 1727 which declared

[1] See Part II., Chapter IX., Art. 6.

all combinations in restraint of trade to be illegal. The State, however, was not yet prepared to accept the *laissez-faire* policy of the nineteenth century, for when the weavers replied with a counter-petition against the masters for combining to reduce their wages, the Privy Council intervened on their behalf.

The union movement spread quickly from the weavers to other sections of textile workers, and was particularly strong among the combers in every centre of the industry from Taunton to Colchester. In the tailoring trade unionism developed very early in the eighteenth century. Conditions for the movement were very favourable in London, as the industry there was organised on a capitalist basis. The period 1700-1750 witnessed an incessant struggle between masters and journeymen over the problems of wages and hours of work. As in the case of the West of England weavers Parliament again intervened in support of the masters, but the justices were instructed to use their powers of assessment of wages under the Act of Elizabeth to prevent undue exploitation of the men.

The Combination Laws against the tailors and weavers discriminated unfairly against the men. As was the case from 1800-1824, it was as illegal for the masters to combine to reduce wages as it was for the workmen to combine to raise them, but the Acts were never enforced against the masters, who, in any event, could easily evade them. State action did not destroy the trades union movement; it persisted in secret, or under the cloak of friendly benefit associations until it received legal sufferance through the efforts of Place and Hume, in the early years of the nineteenth century; but it marks the beginning of measures which aroused in the hearts of the workers a sense of injustice which long prevented good relations between capital and labour, and which has not wholly disappeared even in the present day.

CHAPTER VI

IRELAND AND SCOTLAND BEFORE THE INDUSTRIAL REVOLUTION

A.—IRELAND

1. The Geography of Ireland

The economic position of Ireland has always been affected by its political history, which in turn has depended on its geography. The country consists of a large plain, with scattered groups of mountains round the edges. The plain meets the sea for a short distance on the east coast and at the head of innumerable estuaries. Ireland is dominated geographically by Great Britain. The coast plain is opposite the English plain, while there is a short crossing to Anglesey. The north is within easy reach of Scotland.

Much of the country is barren. The western plain is boggy, as are the mountains. Only the east, part of the north, and the southern valleys are fertile. Thus a large population never existed. The country was easily overrun. The plain was vulnerable to a strong invader, and the inhabitants could be isolated among the mountains.

2. The Early Irish

Like the Britons, the early Irish lived in tribes. The scattered homestead was the rule; small hamlets did occur, but villages were rare. We do not know that a town ever existed. The land was cultivated by simple methods, and pasturage, for which Ireland is well suited, was more important than tillage. There was probably some connection with Great Britain, with Galloway, and the Hebrides; possibly traders came from the Levant and

later from Spain. Perhaps there was commerce; it is thought that Irish adventurers discovered America before the Northmen found it. This may have occurred in the fourth century A.D.

The Romans left no mark on Ireland as on Britain. The people continued primitive and warlike. In 432 St. Patrick began the conversion of the island. His work was not complete and feuds continued. About 800 A.D. the Danes and Northmen first invaded Ireland, partly by way of the Hebrides. Galway and Dublin were in the easiest communication with the plain, but the former, in a wild district, faced the Atlantic. Hence Dublin in 840 became the first Irish town; it was a village of some importance before that time.

3. The Danes

Wexford had a harbour sufficient for the Danish ships. Waterford, on a fine estuary, opened up a great fertile valley. Cork was on a magnificent harbour. Limerick was on the fine Shannon estuary, and was within easy reach of the Golden Vale, the most fertile part of Ireland. These became Danish ports.

The country was still unsettled, agriculture was backward. Commerce hardly existed, and there is no evidence of the use of coins. Foreign luxuries were bought at country fairs. There were no good bridges. Some approach to the English system occurred in the periodical redistribution of land in certain places; oats were the chief crop.

The Danes followed their usual methods, but could not make matters worse. A large commerce grew up in the towns. Traders and artisans settled, and mints were set up. Roads and bridges were constructed. The invaders tried to overrun the country, but in 1014 the great king Brian Boru, who had formerly defeated the Danes, drove them into Dublin Bay at the battle of Clontarf.

Little was gained. The central power was weakened and various kings disturbed the country. Brian himself was old; he paid a compliment to the civilising effect of the Danes by allowing them to settle in their own towns, so that trade and commerce might be stimulated. They were so limited in numbers as to be easily overpowered.

There was not much change up to Norman times. Unlike England, the cultivation of the land was generally unhampered by manorial restrictions. Some control was effected by a modified patriarchal system; there was generally some respect for the authority of the family head. The cultivators were also bound by ties of kinship, as in the Highlands of Scotland. By 1066 we know that there was some trade with England, chiefly from Dublin; Chester was the collecting town. Irish merchants visited England; they probably traded at fairs in Cambridge and elsewhere. The slave trade was so important that in 1172 Irish Bishops proposed a boycott of English slave dealers.

4. The Norman Invasion

A Leinster chieftain in 1167 sought the aid of certain Welsh barons. They assisted him and settled in the country. Ireland now possessed cattle and sheep in abundance and the country was a tempting prey. Norman nobles fastened on Dublin and attempted to share the plunder. Henry II., jealous of his vassals, had to interfere. The Pope seems to have presented Ireland to him with his blessing. Henry came to receive the allegiance of English and Irish chiefs, and left his son John as lord. The English had to use Dublin as a centre, and the extent of their authority was limited to the Pale, the district around. Here Norman customs were imposed.

The chief importance of this was that the district became largely English, and the economic life was partly assimilated to that of England. Yet many of the Irish in this part preserved their old customs. The power and economic

influence of the Normans varied, but Dublin was generally controlled. The Pale reverted to the old conditions during the Wars of the Roses. Ireland as a whole seems to have prospered little, commerce improving only slightly. The Dublin merchants fled when the Normans first came. The trade was given to a company of Bristol merchants. Edward III., by the Staple Act, gave privileges to Dublin, Cork, Waterford, and other ports.

Henry VII. tried to reconquer the country. His son brought distress to Ireland by forcing the Reformation on it for his own gain. Edward VI. pursued the same policy. Even Queen Mary seems to have shown small sympathy in that she began the process of plantation; King's County and Queen's County were carved out. Elizabeth cruelly conquered the whole country for the first time. Munster had before practically been laid waste. Peace was obtained, but the inhabitants were in no condition to till the ground.

5. Conquest by Elizabeth

Under Elizabeth most of the country was still "outside the Pale." Agriculture was backward and the earliest plantations were unsuccessful. Spenser had proposed an excellent scheme. He suggested that Ireland should be allowed to develop in its own way, military force being used to obtain peace. Probably the experiment, carefully made, would have been successful. The rival policy was unfortunate.

In 1567 Sir Humphrey Gilbert, with a band of Devonshire gentlemen, tried to plant the Ulster Crown lands, but the project failed because of local opposition. After the devastation of Munster, they tried in 1583 to settle in that province, and were only partially successful. In 1570 Smith had tried to plant Ulster but was killed, and his son carried on his work. All the plantations were in the main a deliberate attempt to anglicise the country, though the

necessity of peace and the hope of economic improvement were also factors. The early attempts failed, especially in Munster, because the plantations were too large to till and to protect.

When the Earl of Tyrone rebelled, his Ulster lands reverted to the Crown; James had already introduced the English system of land tenure. A Commission was appointed in 1608 to estimate the area of the Crown lands. Another Commission was given the power of settlement, and in 1613 a charter was granted to the Plantation Society. Though the new planters held their lands directly from the Crown, the City of London and the City Companies took control. The former obtained Derry and the County Coleraine (Londonderry); the latter received lands to the south of this.

6. The Plantation of Ulster

The companies were to grant small tracts to undertakers, "servitors," and natives. The servitors were those who had helped the government; being generally soldiers, they were placed in the dangerous, exposed districts. The Munster mistake was avoided by giving holdings of not more than 2,000 acres, generally much less. In Queen's County bad feeling had resulted from the presence of settlers and native cultivators side by side; in Ulster the greater number of planters made for safety. The undertakers were English or Scotch; they had to be Protestants, and were forbidden to employ Irish labour. They had to follow English customs, agricultural and otherwise. It was complained that the City Companies did not promote immigration, but unlawfully relied on Irish labour. The natives accepted the situation, because they expected a rebellion; the risings of scattered Irish soldiers were, however, fruitless.

This was the real beginning of the Protestant settlement of Ulster. An industrial progressive population made this

province prosperous and relatively peaceful. A heavy price has been paid. The racial and religious differences have caused intense bitterness; each party came to look on Ulster as its own land; the result is seen to-day. The attempt to convert Ireland has not only failed, but progress, where it has really occurred, has intensified the bitter spirit.

The early Stuarts treated Ireland like the American colonies. A military occupation was considered necessary. The difference was that in America the inhabitants were savages who moved to another part of a large continent when the English settled. In Ireland the people could only move into the barren west. Both the settlers and the displaced natives had some right to the land. As the former were settled by the government, it was wrong that they should be dispossessed later. There was little property security; the Irish feared further plantation, the Scots a rebellion.

7. The Policy of Strafford and Cromwell

Strafford, sent by Charles I., brought a military peace. Though a tyrant, he administered justice and improved the country according to English ideas. Some monopolies were withdrawn, and the coal duty was abolished. However, he used the increasing prosperity to wring money for Charles' needs. He tried to extend the area of English settlement, and pushed his authority as far as the Shannon. There were disused rights relating to certain lands in Connaught, and Strafford created a storm by suggesting the plantation of these. His death in 1641 ended the period of continuous plantation. While he ruled he was efficient, but rebellion followed his downfall. The Irish tried to reconquer their country.

Strafford had introduced industries (*e.g.* linen) where no danger of competition with England existed. The rebellion of 1641 struck a blow at his work. The economic ruin was

in 1649 completed by Cromwell, who was here seen at his worst, harshly re-conquering the country and introducing a new land system. The property of rebels was confiscated. Even the settlers who had opposed him, some of whom became Irish in spirit, were dispossessed and banished to Connaught, though the labourers were allowed to remain. Many were sent to Barbados; the English merchants and craftsmen who fought against him had to leave their towns. Cromwell had some difficulty in paying his soldiers. He did this by planting them as servitors on the land of the rebels, giving them an interest in the property; this was the cause of some future discontent. Though many of the dispossessed emigrated, voluntarily or not, some remained. He settled the north-east corner, the centre, and part of the south.

Cromwell did bring peace, if by depopulation. The way was open for some improvement under Charles II. Not much change was made. Many of Cromwell's servitors retained their lands. James II. tried to dispossess these, but Protestantism was finally predominant after the battle of the Boyne and the siege of Limerick (1691). Penal religious laws were passed and trade was partly stifled with the object of striking at the Catholic propertied classes. More lands were given to settlers. The " Orangemen " were now William's chief supporters.

The bad feeling between Ulster and the South grew in the next century. Further, the Protestants began to be discontented, and hopes were raised after American Independence was obtained. Commercial relief was given in 1779; the Irish Parliament was independent from 1782 to 1800. There is here no landmark about 1760, and the Union is the best dividing line.

8. The Dependence of Economic Progress on Politics

Economic progress hinges very largely on political conditions. Strafford's policy was inspired by England's

interests, and wool merchants feared Irish competition. Ireland was well suited to the making of woollen cloth, especially at a time when factories and steam power were unknown. The limestone soil suited sheep; labour was cheap, and the poor cottagers needed some method of increasing their scanty earnings. From an insular point of view the industry was ideal, but the English merchants could manipulate political power.

Tyrant though Strafford was, he did much good, partly at his own expense, in fostering industry. His attack on Irish wool was carried on by creating the rival linen manufacture in Ulster, the only one which is really important to-day. He brought flax seeds from Holland and encouraged the immigration of artisans from the Continent.

Even this impressed prosperity did not last. Strafford's work was overthrown by the war disturbances. After the Restoration the signs of improvement alarmed the English. Much attention was paid to cattle grazing, to its consequent improvement. This possibly reacted on English stock-raising, and rents undoubtedly fell at the same time. Ireland was assumed to be the cause, and a prohibitive duty was placed on Irish cattle.

Wool was in a worse case; its export was a necessity. The English complaints not only lay against Irish manufacturers, but against adventurers from England. Cost of production being low and living cheap, these left England with its restrictions, taking with them the knowledge obtained there. Dublin was settled by West of England weavers, while Dutch immigrants came to Limerick. The Irish Parliament tried to foster and control the industry; in 1665 it appointed an aulnager to supervise the wool exposed for sale.

The English carried their point; restrictions and prohibitive duties were placed on manufactured articles. In 1670 direct trade between Ireland and our colonies was prohibited; commerce by way of England was ruinously

expensive. Wool export was now to the Continent. A blow at the heart of the woollen industry was struck by the raw material restrictions. The chief sufferers were the rich English settlers, who had become Irish in spirit. The small farmers, producing for home use (on the hand-looms) or for a strictly local market, were less affected.

A direct paternal interest in Irish industry was the less possible in this and later reigns because Parliament (especially after the Revolution) obtained greater control. The sovereign could have stimulated manufacture, but this would have given him a greater power in a country which was becoming prosperous. As Parliament refused to grant more authority to the king, no attempts at encouragement came to fruition.

Before 1700 the Irish Parliament made another attempt to improve the wool industry, but again the West of England merchants were jealous of the English who had crossed to Ireland, and who could have brought prosperity. More repressive laws were passed, and the industry was finally ruined, at least from an export point of view. The Cotswold merchants crushed competition, but the rest of England was the poorer. Apart from the political mistake there was no lasting advantage to be obtained by making Ireland poor. The two countries were and still are complementary; each needed the products of the other.

Agriculture was in a hardly better state in the eighteenth century. The bounties on the export of English corn lowered its price and gave farmers an artificial advantage. Ireland, without this advantage and affected by restrictive laws, was handicapped. The landlords exacted the full rent from their tenants, who often promised impossible sums. The former took no interest in the land, but spent their money in England. Political power was in the hands of large Protestant farmers or English landlords before 1800, when Parliament was independent. The forests were wasted; England removed the duty on timber in

"Wood's Halfpence."

A copper coinage for Ireland was withdrawn by Walpole on account of popular opposition.

order to stimulate iron production, and large exports took place.

The extent of English selfishness was seen in the case of Wood's halfpence. Wood, a Birmingham manufacturer, received in 1722, by the influence of the late king's favourite, a monopoly for the new copper coinage of halfpennies and farthings. He was to make a great profit. The coins were really unnecessary, but Walpole was interested in the transaction. Dean Swift showed the Irish how they were being cheated, and these refused to use the money. Walpole had to give in.

9. The Union and the Ruined Policy of Colbertism

The Union caused little improvement. The special restrictions were certainly removed, and Ireland became a part of the English economic system. Yet the wool merchants lost because the Protection granted by the Irish Parliament against England in 1784 ceased. Again, though the Great War gave Britain maritime supremacy, Ireland could not take advantage of it because she had few merchant ships, while her manufactures had been ruined, so that the possible export trade was small. The benefit was almost confined to the victualling of vessels and the sail-cloth industry.

Because Ireland was so peculiarly situated it gained little directly from inclusion, while the agricultural depressions in England were shared because the conditions in Ireland and in the English rural districts were similar. The country was in a condition when protection is conceivably justifiable. The Irish Parliament had spent large sums in furthering the cotton industry, the woollen, of course, being well cared for, though the linen manufacture had not developed so much. Further, the present fine system of inland waterways then had its beginnings.

This hopeful development was shattered by the removal of government supervision to a distant and unsympathetic

authority and by natural causes. In any case, the artificial industrial system might have failed to develop, as England was so much better situated, but Ireland's case was hopeless after the introduction of machinery.

Under Charles II. the Irish Parliament attempted to continue Strafford's aid to the linen industry, but craftsmen were wanting, and foreigners were invited. There was little progress until Louis Crommelin and his French weavers came to Lisburn, thus beginning Ulster's success. A similar industry was that of sail cloth from hemp at Waterford about 1700. Linen progressed steadily when it was shown that the new inventions could be used in its manufacture. In Ulster, therefore, the settlers never became assimilated to the Irish people as they had been in other parts. Their natural characteristics were sharpened by their success in industry. Yet even here, wages were never high. The fact that flax could be profitably grown in Ulster shows the existence of cheap labour, as the process of preparation is troublesome.

No sudden change occurred in agriculture in the latter part of the eighteenth century. The bounties on corn under the regime of Colbertism in the Irish Parliament had not affected the food supply of the masses, because potatoes were universally used. In the nineteenth century, Irish agriculture received a heavy blow when the Corn Laws were repealed, and Irish corn for the English market was thrown open to foreign competition.

B.—Scotland

10. The Geography of Scotland

Though Scotland has undergone the same general development as England, there have been marked differences in detail. The cause is partly geographical, partly political. Scotland was independent until 1603, except under Edward I., and did not lose its Parliament till 1707.

Even more than England, the development of the country was affected by its geography. Scotland is very clearly divided into three parts. North and west of a line from the Clyde to Aberdeen lies the largest mountain mass in Britain, lowlands only occurring in the lower valleys or straths, and on the coast, especially on the east. South and east of a line from Ayr to Dunbar lies another high tract, the Southern Uplands, cut by a few deep valleys. Between the two lie the Central Lowlands and undulating plains.

The Highlands are barren and grow little except in carefully cultivated valleys. They are bisected by a very deep valley, Glenmore, running from south-west to north-east. The Southern Uplands consist of slaty fells, covered with grass suitable for sheep. The Lowlands, in part, are fertile, and contain a number of coalfields. In reality they stretch up the East Coast to Caithness and continue into the Orkneys and Shetlands. There is a narrow coast plain from Berwick to Edinburgh, continuing to Glasgow. The other gate to England is by Dumfries and Carlisle. Elsewhere, the Cheviots made communication difficult.

Thus the central plain, widest towards the east, was vulnerable from that direction. Anglo-Saxon invaders from the Continent settled here, while there was for long a free communication through the eastern gate. Hence the Lowlands became English in habits and speech. The south-western counties, with the Highlands, remained Celtic. The East Coast and the northern islands were settled by Danes and Norwegians.

Politically the fate of Scotland was decided by the severance of Bernicia from Deira in the east, and the disintegration of Strathclyde in the west. The English element was thus artificially divided, while the Celts of Dumfries were separated from those of Cumberland. The whole course of the history of South Scotland was thus altered. The country fell under French influence, especially in Tudor times.

11. Early Local Independence

At least after Edward I., the whole economic life of England was influenced by London. In Scotland the nobles had never been in real subjection, while the race question was more prominent. The Highland clansmen continued a patriarchal system of agriculture and pasture, varied by pillage expeditions. The Lowlanders suffered greatly from the nearness of a warlike people and their development was checked. In the north-east the inhabitants carried on an independent life as fishermen. Even in the Lowlands there was less inter-communication in mediaeval times than in England.

At the Norman Conquest Northumbrian refugees increased the Teutonic element, while Malcolm III. married an English princess. Further, David I., early in the twelfth century, introduced Norman officials and customs. The effect was first that Celtic modes of agriculture and trade was overborne by English ideas coloured by Norman influence. Also towns grew rapidly. They were a necessity if strong places were to be held, as a castle was always the centre of an increasing population. An increased trade followed. Scotland became feudal, and the change was greater than in England.

The battle of Bannockburn (1314) ensured independence. Bruce united the Lowlands at least, and the process continued while Edward III. was fighting in France.

The Norman towns presented great external similarity to those of England, because they mostly copied their customs directly from Newcastle or from London. Flemish influence, however, was great; in all times there was much direct communication between Scotland and the Continent. In the lack of kingly control Scotland resembled Flanders; again, the towns tended to become more independent than in England. By the time of Edward I. they had reached a high state of development.

12. Early Trade

Trade was carried on from early times. King Malcolm in the eleventh century imported rich dresses from the Continent, while in the next century David obtained silks and other luxuries from the East. Foreign merchants began to settle in the country; the trade was chiefly in their hands. It was carried on partly directly and partly through England, but the land traffic was riskier, and more expensive owing to the numerous tolls.

The East Coast Danish fishermen by their enterprise balanced the stability and caution of the townsmen. Shipbuilding was always carried on, but it first became important in the thirteenth century. The best harbours were on the West Coast, but the population was scanty; the developing East Coast ports were in touch with London and the rich Flemish cities. Increased foreign trade enriched the towns. The Hanse established itself in the north-east in this century. Inland development was hindered by artificial protective hindrances to trade.

The structure of the merchant gilds resembled that of the Flemish representatives. There was a division between the " guildry " (from which craftsmen were excluded) and the burgesses. The former were an inner circle with special privileges and exercised the real management of the trade.

13. The Scotch Gilds

The craft gilds developed in a somewhat different manner from England. Many complaints were made in the latter country that seven years' apprenticeship was too long to learn most trades. Probably the stipulation was made to limit the number of craftsmen. In Scotland little attention was paid to the matter and the quality does not seem to have suffered. Chief reliance was placed on the " masterpiece." This was of little importance in England. An apprentice was held to have secured his position when a test piece of work was approved by the craftsmen.

There were no real craft gilds till the fifteenth century, but then they became common. The power was in the hands of deacons, but these were appointed by the town authorities. The craftsmen had no influence on the government of the town, as they had over the border. Hence a struggle ensued between them and the authorities. The craftsmen tried to elect their own deacons and, when strong enough, to control the government of the town. They succeeded in most cases towards the end of the sixteenth century.

In England the craftsmen had often joined the merchant gilds. In Scotland the authorities generally could exclude them. Further, the gild policy of Henry VIII., carried out by Somerset under Edward VI., did not touch Scotland, an independent kingdom. Hence many of the powers of the gilds persisted until last century, while the practical decline was slower than here. Scotland, particularly the towns, progressed under James I. in the early fifteenth century.

14. Progress under James IV.

The country made a great advance under James IV., about 1500. An intellectual revival took place, printing being introduced. Much of Scotland's later prosperity, when education had taken deep hold of the people, was due to this fact. Commerce was now more carefully controlled, and a navy was built. James was a close ally of France, and French influence became very important under James V. and Mary Stuart. Simultaneously England was at enmity. Thus trading relations were almost broken off with England, while much commerce was carried on with France.

Political considerations became supreme. James VI., succeeding to the English throne, moved his capital to London. Religious difficulties appeared. Charles I. wished to force Episcopacy on the Scots. The latter helped the

Roundheads, hoping to spread Presbyterianism, but their failure made friendly relations impossible. Scotland was placed under the protecting care of the English executive all this time. Scotch commerce was submitted to restrictions; if there was fear of competition, England had her own way. Thus Scotland possessed the disadvantages of a foreign country without the power of self-defence.

15. The Darien Scheme

Ecclesiastical troubles continued till Presbyterianism was finally established by William III. The nation now gave its attention to commerce. Quiet development had taken place, and there was much money in the country awaiting investment. The Darien Scheme (1695) was promoted by Paterson, the founder of the Bank of England. He wished to colonise the Panama Isthmus, and thus make possible a great trade with the East. Rivalry with the East India Company was avowed. William III. was opposed to the project. The colonists were attacked by Spaniards and their number was lessened by disease. A few returned to tell of dismal failure.

The Scots put the blame on the English opposition, which was natural. The former were attacking a legal monopoly; far worse, they were proving dangerous rivals to English trade. The predominant Parliament had refused to sanction an English scheme similar to that of Darien. The English merchants held it to be impossible that their schemes should be frustrated by the competition of presumably friendly merchants. The rivalry was not new, but it had developed quickly, while for the first time since the accession of James I. the two countries were friendly. From all points of view, political, commercial, and moral, a settlement was necessary.

The simplest method was to place the commerce of Scotland under the protection of the English Parliament, so that it could be included in the nationalist policy of the

mercantilists. The English merchants were in favour of this course; the Scots wished to preserve their independence. England insisted on the principle of supremacy if the Parliaments were joined, but in matters of detail and finance were willing to treat Scotland generously. The Northern merchants were not thoroughly satisfied by the Union in 1707, but their objections gradually disappeared.

16. Banking

The Bank of Scotland was founded in the year of the Darien Scheme. Banking developed independently, and its effect on commerce was largely the cause of the individualistic development of Scotland after the Union. Parliamentary control over industry was more effective than before, as there was little Scotch experience of trade regulation. The Scotch disabilities were removed, and the English advantages were shared. Yet the Northern merchants made their own use of their advantages; they did not lose their peculiar tradition. The independence has persisted till the present, in spite of the free trade resulting from the Union.

Though the Bank was founded soon after the Bank of England, and though the business was similar, the difference was that there was no legal monopoly. The circumstances under which the Whig merchants lent money to William III. were very special; there was no close connection between the king and financiers in Scotland. Hence competition ensued. The Royal Bank of Scotland received a charter in 1727. Unhealthy rivalry resulted: each bank collected the notes of its enemy and tried to ruin it by suddenly presenting them for payment. Each bank met the crisis by such expedients as paying in sixpences. Later, conversion was for a time made unnecessary by law; dangers were obviated, but the note lost somewhat in estimation. In the end the rivalry was all to the good, each bank was stimulated to further the interests of traders.

The British Linen Company started in 1746 for trading purposes. It was necessary to collect money. Scotland was becoming richer and much capital awaited investment. The company found that it possessed an effective control over loanable capital. It gave its energies to its banking department, and became Scotland's third great bank. It exists to-day.

In 1704 pound notes, a distinctive feature of Scotch banking, were introduced. The rivalry between the first two banks led to an extension of banking business. The Royal Bank also introduced another special Scotch feature —cash credits. Any person of known honesty and ability could borrow any reasonable sum if he could obtain two sureties of good position.

Banks began to grow. As there was no restriction, and no central privileged concern, they developed where they were needed, and had little connection with the capital. Thus the large provincial towns, *e.g.* Aberdeen, developed an independent banking system, fed by local supplies, performing a local service, and not interfering with banking in other towns. The system was natural; there was no question of a central bank monopolising business and being unable to execute it satisfactorily, while if a bank was really needed in a populous district it was sure to grow up. The system was elastic, and may be contrasted with the stable arrangement in England.

The danger was that a small local bank with little sense of responsibility would speculate wildly and finally come to ruin. The cautious Scotch genius generally prevented this. Scotch merchants could watch their own permanent interests and therefore that of their customers. They readily seized any exceptional gains, but were chary of taking risks. Even in England bankers were more cautious than the generality of merchants. In Scotland they administered a useful but dangerous system admirably.

Joint-stock banking held the field. Adam Smith was

no friend of company management, though probably this was partly because it emphasised the national caution in cases where enterprise was needed. Even Smith noticed that certain trades, when the business is a matter of routine, require great caution, though deliberate judgment is necessary. Banking is the best example of such a trade.

Banking was subject to natural selection. Each concern had to fight without artificial assistance, so that the best firms spread. Hence the largest and richest banks had the best record, and were most fitted to send out branches, which they did. Banking is easily monopolised, but in a natural state the best banks obtain the lead. The English centralised system developed, especially in the next century; Edinburgh and Glasgow became financial centres.

The advantages of the Scotch system were emphasised during the disastrous Great War. Failures of private banks were common in England. In Scotland the critical time was safely passed. The resulting influence on English banking was great; the Bank monopoly was attacked, and it was found that it legally extended to issue banks. Joint-stock deposit banks grew up on the Scotch model. There was also a direct movement of Scotch-trained bankers to England. Thus the English and Scotch systems have been gradually closing together.

17. The Effect on Industry

The effect on industry was almost wholly good. The Scots are a thrifty race, and the inducements offered provided a large capital even in a poor country. Manufacture and commerce generally increase at least proportionately to the wealth of the country. The local banks made money fluid.

The pound note provided a convenient convertible currency. Large transactions were made more easily. As there was no monopoly of issue, the only limit was the

amount of notes required for commerce. Thus the notes were rarely too scarce. In England the note restriction (especially after 1844) led to the development of the cheque system, which obtained less hold in Scotland. During the critical time of the Industrial Revolution, however, the latter possessed superior advantages. Payments were more easily made, and local trade was stimulated. The notes were not payable in England; hence trade with the latter was rather more difficult than home communication. The effect was similar too, but far less than, that between countries with different currencies.

The notes tended to conserve national independence, the cash credit system helped to make each district self-sufficing. In England the old gild sentiment had not quite disappeared by 1800. The new men were making their way, but much trade was still in the hands of those who possessed an artificial or natural monopoly. Most of the best talent in England was wasted for lack of capital, rich though the country was. In Scotland the best men, however poor, provided they had shown their ability, could borrow money at fair rates.

The effect was the same as in the German credit banks to-day, though the method was wholly different. Special caution had to be taken, and the circumstances of the trader had to be thoroughly known. Hence there arose a close connection between banker and customer, and the economic life, especially if in the hands of poor traders only, centred in the banker. Thus Scotch trade, especially in the country, tended to concentrate in certain points; it was scattered, but where it existed it was vigorous.

This democratic method of trading probably hindered the growth of large-scale industry. Merchants and employers started at a lower level than in England, and though many fortunes were made, the use of large wealth to obtain an initial advantage was restricted to a few large towns. Again, competition was keen, partly because of

the natural disposition of the Scot, and partly because so many had a fair chance. Again, Scotland is a country of learning; education is cheap, and few were debarred from trade through excessive ignorance.

Enormous businesses arose later, especially in the iron and shipbuilding trade. Yet it is doubtful whether there is a country where commercial ability is so widespread as in Scotland to-day. Small manufacturers are everywhere.

How much of the development is due to Scotch banking is doubtful; the effect was certainly great. Scotland's advance is due mainly to the Industrial Revolution and to its geographical position. The population was perhaps half a million in 1400. Edinburgh contained 20,000 inhabitants. It was probably founded by Edwin of Northumbria, because of its remarkably strong position overlooking the coast route, just where the Forth estuary was easily crossed. Perth guarded the approach to the Highlands; Aberdeen lay where the Dee crossed the coast plain. Dundee and St. Andrews were Tay ports Other towns were insignificant. In 1707 the population was only a million, and the country was very poor before 1760

18. The Effect of the Union

Improvement was not immediate after the Union Some manufacturers suffered through the opening up of English competition by free trade. This, however, made for solid progress in the end, and there was a gradual improvement until 1760. The staple English manufactures had developed, and Scotland was prepared for the changes. Great Britain, south of the Highlands, became a single economic whole. With all its independence, Scotland eagerly seized the advantages of the great inventions It possessed the coal, the iron, the water power, and English conquests provided the markets.

Transit had also improved. The high roads in the twelfth century were to have a minimum of 20 feet, while

important bridges were built. Communication, however, was very difficult, and the Highlands were almost impassable. The first coach was used in 1610, and forty years after a service ran from Edinburgh to London. In the seventeenth century the "Statute labour roads" were made by compulsory local labour, supplemented if necessary at the expense of the landlords. The Highlands obtained some fine military roads after 1725, while turnpike roads existed in the Lowlands after 1750.

The mouths of the Forth and the Clyde are only fifty miles apart, and are connected by a low plain. They were joined by a canal in 1790. The Caledonian Canal, opened in 1823, was easy to make, but was of little use except to fishing fleets and tourists. The Crinan Canal connected the Clyde with the outer islands. A horse railway was opened at Kilmarnock in 1812.

Economically, Scotland gained much from the Union, a fact which explains the gradual evaporation of Jacobite enthusiasm during the first half of the eighteenth century. It has often been noticed that political revolutions are usually rooted in economic grievances, and that as soon as the economic disability has been removed, the political disorder dies gradually away. This accounts for the strained relations between England and Ireland throughout the nineteenth century. Unlike Scotland, Ireland did not gain economically from Union with England, indeed, as will be shown later in Part II. of this book, the adoption of Free Trade by England ruined Irish agriculture.

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ECONOMIC HISTORY

PART II.—1760 TO THE PRESENT DAY

CHAPTER I

A PRELIMINARY SURVEY OF THE INDUSTRIAL REVOLUTION

1. Introduction

The Industrial Revolution is a term that has been interpreted in more than one way. It has been widely believed, probably on the authority of Arnold Toynbee, that the period 1760 to 1800 witnessed a sudden and violent transformation effected by a few men of inventive genius. That theory is now discarded. All the phases of the Revolution, but one, the application of steam power to machine production, have a history extending back into the sixteenth century.[1]

By 1760 many of these phases had reached a stage of mature development. Private capitalism, large-scale production, and even competition had obtained a grip on most trades. Some industries, like coal mining and the manufacture of bar iron, had been on a large-scale capitalist basis from their first inception. Production for a definite market, instead of for subsistence, had been in process of evolution since the sixteenth century, and an artisan class wholly dependent on industrial earnings, and having neither ownership nor control over the instruments of their production, had already appeared.

This does not mean that England had become industrialised by 1760. That would be to exaggerate in the

[1] Part I., Chapter V.

opposite direction. In 1760 England was predominantly rural. Its population, still relatively small, was diffused over rural areas, or in towns which for the most part were merely overgrown villages. Industry was not yet concentrated; the textiles, and the conversion of bar iron and steel into light usable goods was still carried on, for the most part in the homes of the workers. Canal and mechanical transport, which allows the rapid and easy transit of heavy commodities at negligible cost, and which makes labour mobile and in consequence class conscious, had not yet developed. A fundamental transformation in the economic life and position of the people was still for the future.

The Industrial Revolution was not a sudden break; it was rather an exceptional acceleration, and perhaps a deflection of forces in a new direction, set in motion by the application of steam power first to the textiles, and secondly to other industries. Production of this kind was physically outside the scope of the domestic system of industry; hence manufactures were concentrated and localised near the sources of their power, and housed in factories around which new towns sprang up with almost mushroom rapidity.

But if 1760 does not interpose a rigid point of demarcation between mediaeval and modern industry, the fact remains that industrial technical progress made a fundamental advance during the last forty years of the eighteenth century, and the rise of the factory system in the new towns had such momentous consequences on the rate of production of wealth, and on the economic position of the masses, that in a certain sense, the term Industrial Revolution is not without justification.

2. The Causes of the Revolution

To the question why did the rate of industrial and technical progress accelerate so rapidly towards the end

of the eighteenth century, several answers have been given. In the first place, the period 1650-1750 was remarkably fruitful with respect to progress in the physical sciences. The breakdown of the Scholastic Metaphysics with the Renaissance of the sixteenth century, and the new impetus given to experimental philosophy by Bacon, had led to a great interest in mechanics and mathematics in the seventeenth and eighteenth centuries. The early inventors, with the exception of Watt, were not, it is true, men of high scientific attainments, but they lived in an age, perhaps the first in history, really favourable to mechanical inventions. Greek speculative genius was cramped, on the practical side, by the contempt which the philosophers felt for the pursuits of the artisan. Thought, in the mediaeval world, was always the handmaid to Theology, and an age which regarded historical events as the gradual working out of the Divine Will, was not calculated to be fruitful in social or industrial improvements. But after 1650, a new era began. The old contempt felt by the upper classes for industry and trade began to lose force; the old line of cleavage between the landed and commercial interests began to lose clearness. Added to this, the spirit of criticism and curiosity which after the Renaissance turned first to religion, and subsequently to mathematical and physical science, now descended to the lower realms of industry.

Secondly, the latter part of the eighteenth century proved a meeting point for a number of forces which in one sense are contributory, and in another sense, to which inventions are subsidiary. These forces were surplus labour, surplus capital, accessible supplies of raw materials, and new markets. The importance of these factors taken collectively are immense. The first three made possible an unprecedented expansion of industry; new markets provided an outlet for its products.

Surplus labour and surplus capital had been slowly

accumulating since the beginning of the seventeenth century; the development of the colonies and plantations overseas offered abundant supplies of raw materials; the commercial decay of Spain and Holland, and the conquests of Wolfe and Clive, opened up vast tropical markets for the simple and cheap commodities in the manufacture of which, England, because of the political state of Europe, was without a serious competitor.

The importance of colonial development, and the extension of foreign trade as a factor in the industrial changes of the second half of the eighteenth century, has been referred to several times in Part I. of this work. Political conditions deserve also a passing notice. From the Whig Revolution of 1688 onwards, England enjoyed internal peace, and her insular position, backed by her maritime supremacy, guaranteed her in those days from the perils of foreign aggression. It is true, that notwithstanding the peace policy of Walpole, she failed to escape the entanglements of international disputes; but these, apart from the gradual accumulation of the National Debt, had no immediate adverse effect on the life of the nation; indeed, they were a contributory factor to industrial progress, as England invariably emerged from the struggle endowed with new markets.

This, of course, was not the case on the Continent. There, the seventeenth and eighteenth centuries were periods of chronic and unexpected dynastic disputes. France, the Low Countries, Germany, and Central Europe were devastated by religious dissentions, or by the arms of a foreign invader; Italy and Spain were fettered by a decadent priesthood. In England, under the rule of an unreformed parliament, political freedom was more imaginary than real; but in no country of the Old World (the New World was still for the future) were political and social conditions so favourable to industrial expansion, as Voltaire and Montesquieu so acutely discerned.

3. Individualism

But allied with, and behind the above causes was a philosophical phenomenon, the rise of individualism, and unless the meaning and significance of individualism is clearly understood, it is impossible to view the period 1760-1850 in correct perspective.

Mercantilism as a social philosophy[1] was merely a union of the general features of mediaeval theories of society with the principle of nationalism. Mediaevalism was essentially universal. Its leading concepts were a universal church, and in theory, a universal Empire. Mercantilism, with its political and economic centralised nationalism, had nothing in common with universalism, yet it borrowed from mediaevalism certain of its fundamental ideas. It viewed society as akin to an organism, of which the whole is prior to, and greater than, the part, and of which the health of the whole is dependent on an harmonious correlation of its functions. The mediaeval ideal of a society, the classes of which are firmly bound by reciprocal rights and obligations may have been but imperfectly realised in later mercantilism, but it was never altogether absent even so late as the first half of the eighteenth century.

Individualism was an offshoot of the Protestant Reformation of the sixteenth century. The repudiation of the Papal Authority, and of the Priesthood as necessary mediator between God and man created the individual in the philosophical sense. The Protestant theory of a direct responsibility of each member of the congregation towards his Creator, placed the individual in an entirely new light. This throwing back of the individual upon himself caused him to be regarded as a separate and independent entity; and in Reformed religious circles, at least among the Puritan extremists, it was no longer possible to regard him merely as a member of a group. This was a fundamental

[1] Part I., Chapters IV., V.

change of outlook which subsequently had important practical consequences.

4. Natural Rights

The individual, once discovered, philosophy gradually endowed with certain natural, inalienable, and indestructible rights. The Dutchman, Hugo Grotius, carried these natural rights into political philosophy at the beginning of the seventeenth century, and the movement was continued by Pufendorf, by Locke, and by a host of secondary writers.

Throughout the seventeenth and eighteenth centuries, these natural rights were invoked against the state on behalf of the individual. The state was conceived as a voluntary association of free and independent individuals bound together by contract to protect the natural right to liberty of each of the associates.

So far as England is concerned, this individualistic philosophy attained to full development in the writings of John Locke, for whom, reason and self-interest were the primary motives of human action. Locke exercised enormous influence on later English writers; it is not difficult to see in his abstract, rational individual, the precursor of the economic man of Richardo and his circle in the early nineteenth century. He had also much influence on philosophic thought in France, where his doctrines were the source from which sprang the eighteenth-century materialism of Helvetius, Diderot, and Condillac.

This philosophy of individualism raised problems of the gravest social importance. What is the true nature of society? Is it akin to an organism in having a higher unity than the sum of its parts; or is it a mere aggregate of independent individuals in which each member remains a self-contained entity, and in which the association of the parts has produced nothing more than a purely mechanical community?

From the Classical Greeks, onwards through the Mediaeval Ages, downwards to the seventeenth century, the real unitary theory of society was generally accepted. During the sixteenth and seventeenth centuries, mercantilism, so far as it was a theory consciously applied, was based on this theory. But the post-Reformation tendency to monarchial despotism in England and France compelled the transference of the individualistic theory from religion to politics in order to justify resistance to arbitrary secular power.

In this way, the individual was put in antithesis with the state. Liberty was conceived in a narrow and negative sense only. Individual liberty could only develop by restricting state action to the simple and definite process of preserving order; in other words, by confining it to the circumference of a circle within which the individual was free to develop his powers in any direction he pleased, so long as he avoided collision with his fellows.

5. The Physiocrats

The transference of individualism from politics to economics was largely the work of a school of political economists in France—the Physiocrats. Similar tendencies can, of course, be traced independently to the English thinkers at the end of the seventeenth century, but it was the Physiocrats in France who first raised economic individualism to the dignity of a philosophical system.

The Physiocrats declared that all the men and all the human powers are submitted to moral and physical laws instituted by the Supreme Being; laws immutable, the best possible, the foundation of the most perfect government, according to Quesnay, the chief of the school. The rulers have no reason for changing these laws, which, having emanated from the wisest, the most powerful, and the most enlightened being, give equal satisfaction to all interests. Numbered among the natural laws is the law of labour; man is necessarily subordinated to external

environment which furnishes him, at the price of certain efforts, with the products necessary for his subsistence. But as every individual has the duty to preserve his existence, he has, therefore, the right to exercise his activities in this object without hindrance from others; he has equally that to appropriate, and to preserve the product of his labour, to dispose of it, and to exchange it against other objects that give satisfaction to his needs. As these rights are of Divine creation, the established authority must guarantee the individual the free exercise of them; the ruler must not legislate capriciously; his sole duty is to teach to his subjects the existence of the natural laws, to remove all the obstacles which hamper their application, and to take positive measures to promote their free working.

The Physiocrats started from the principle that the application of these natural laws must give satisfaction at the same time to the interests of individuals, and to those of the state. There exists between these sets of interests a pre-established harmony which is broken only when the application of the natural laws is impeded. These immutable natural laws were, for the Physiocrats, independent of circumstances of time and place. Pre-social man was ruled by them; and he is still subject to them after his entrance into society.

This belief in natural law was not novel. An integral part of the Stoic philosophy, it was eclipsed during the Middle Ages by considerations of a more positive Divine Order. With the revival of antique thought during the Renaissance, however, natural law re-entered European thought and was repeatedly invoked by religious and political minorities as a justification for resistance to arbitrary power. It was the use of it that was peculiar to the Physiocrats. The economic order was placed outside the range of conscious human direction, and what is, appeared not only to be sanctified by Divine purpose, but also inevitable.

6. The English Economists

A generation later the theories of the Physiocrats were developed in England by Adam Smith. Whether Smith borrowed his ideas from the Physiocrats, or worked them out independently, does not concern us here. The all-important point is that his main position, with respect to individualism and natural law, was similar to that of the Physiocrats, and his influence in England was immense.

Smith was the spiritual father of the economists who founded the classical school of Political Economy in England. The two most influential of the early members of this school were Malthus and Ricardo. Both of these men, Ricardo especially, derived their philosophical position from Adam Smith, and through him indirectly from the Physiocrats. Ricardo and Malthus had as keen a belief in natural invariable law as Quesnay had; Ricardo held as firmly to the doctrine of a Divine pre-established harmony between the public and the private interests as any of the Physiocrats, and he accepted (perhaps unconsciously) the individualistic theory of the nature of society.

The English Economists stood on common ground with the Physiocrats in yet another way. Like all the seventeenth and eighteenth century thinkers, Montesquieu alone excepted, the Physiocrats isolated their system from circumstances of time and place. Natural laws, they believed, would function efficiently, and without modification, in all stages of social, economic, and political culture, and under diverse climatic and physical environments. The fundamental defect inherent in such an outlook is that a dynamic world becomes static in thought. Systems, whether political or economic, become abstract and divorced from concrete realities, transitory events, due to local and accidental circumstances, become universalised. Not only that, but problems become over-simplified and divorced from their natural connection with other aspects of social phenomena.

In respect of method, Ricardo and Malthus made no advance on the Physiocrats. Adam Smith was saved from many exaggerations by his reading of Montesquieu's *Esprit des lois*, but even the *Wealth of Nations* has been adversely criticised on the ground of lack of insistence on the relative value of economic institutions.

On terms of close intimacy with Ricardo and Malthus was another philosopher who contributed much to the formation of public opinion in those days, the political scientist and jurist, Jeremy Bentham. In many respects, Bentham differed widely from Locke and the Physiocrats. He rejected natural law and natural rights in favour of the principle of utility, but he was just as abstract and removed from experience as the philosophers whose doctrines his purpose was to refute. Like the Natural Right school, he believed that society was an artificial and mechanical association of independent individuals, not a natural or organic unity, with the result that his individual, motived by the calculus of utility (Ricardo's economic man), was just as remote from reality as the pre-social man of Locke.

7. The Effects of Individualism on the Industrial Revolution

Such was the economic and social philosophy in which the Industrial Revolution developed. That it was a cause, or at least a contributory condition of the Revolution, is easy to establish. The starting-point of this chapter was that the Industrial Revolution was not so much a break, or an innovation, as a period of extraordinary activity of forces that had been slowly maturing for centuries. But down to the middle of the eighteenth century these forces had been restrained (apart from other factors) by the ideals of the mediaeval economy, the love of self-sufficiency and stability, the rule of custom, and the sentiment of the organic nature of society. It was on the ground of this last that the Plantagenets made numerous enactments against the liberty of the individual, and that

the Tudors viewed with disfavour the decay of tillage, the use of machinery, and the early stages of capitalism in the wool trade.

Individualism, by making the independent individual the unit of society dethroned the state; and by allowing unlimited scope to the activity of individual interests, by regarding private vices as public virtues, and by investing the workings of the so-called natural laws with Divine sanction, breached these barriers, and created a mental environment in which individual initiative could harness the forces of nature to the mass production of articles for an international and speculative market.

In so far as individualism removed barriers to progress, individualism in economics, like utilitarianism in politics, produced on the whole beneficial results. Economic institutions, like juristic and political ones, have a relative, not absolute value. They are not, as a rule, of arbitrary origin, but develop in response to definite needs, which in turn are the effects of special and peculiar circumstances. But, unless possessed of a natural capacity for adaptation to changing environment, in the process of time they become obsolete and a shackle on progress, as was undoubtedly the case in the successive stages of mercantilism, and once a nation is embedded in a rut, no extricative force is so quickly effective as individual initiative and freedom.

But, in removing the restrictions on progress, individualism destroyed for two generations a theory of society which at least affords some protection to the weaker and unfortunate classes, for so long as society is considered as akin to an organism, the welfare of each part can never be isolated from that of the rest. In place, therefore, of the ideal of a well-regulated society with each organ functioning for the public good was substituted unlimited competition, the survival of the fittest, an early anticipation of the Darwinian theory of evolution. The identification of public with private interests on which the rule of

laissez-faire was founded, and the belief in the inexorable laws of nature, scarcely distinguished in many minds from Divine Laws, gave self-interest the appearance of something fundamentally necessary and beneficent, and provided a justification for the existing inequalities in economic society.

And unfortunately, the logical consequences of individualism did not remain confined to the realms of speculative philosophy. They were carried into practical affairs by statesmen and administrators. To alleviate the poverty and economic disabilities of the masses by preventing the exploitation of the weak by the strong seemed not far removed from a thwarting of Providence, for were not the labourers, on the inferences of Malthus, condemned to subsistence by the laws of population and diminishing returns, a pessimistic doctrine reinforced by the Ricardian theory of rent.

The condition of the working classes will be described in a later chapter. The widespread misery and destitution among the workers of the early nineteenth century was due to multiple causes—the transition from the domestic to the factory system when natural forces were allowed free play; the narrow specialisation of labour, and the new fluctuations in the demand for commodities on the part of an ever-widening extra-national market; and the concentration of labour in the factories which allowed neither energy nor time for following supplementary employments. But when all weight has been given to these causes, the fact remains that much of the suffering was simply the logical corollary of the individualistic thesis accepted and practised by the employing and governing classes of that time.

Since 1914, industrial changes have been in progress that admit of comparison with those of the period 1770-1830. The war gave a great impetus to the introduction of labour-saving automatic machinery into industry, one result of which has been an unprecedented increase of

unemployment during recent years. That the unfortunate labour displaced has not again been left to the tender mercy of natural forces, is mainly due to the decline of individualism, and the revival of a truer concept of the nature of society.

Behind the phenomena of machine construction and specialisation of labour, the fundamental characteristic of the Industrial Revolution was the substitution of competition for the mediaeval ideal of regulation. Not that competition was unknown before 1760; like every other phase of the Revolution it had a long history even at the end of the eighteenth century, but what before 1760 had been spasmodic, had become by 1800 a universal system supported on a philosophical justification. The whole history of economic thought from Adam Smith's *Wealth of Nations* in 1776 to John Stuart Mill's *Principles of Political Economy* in 1848 is simply a justification of the principle of unrestricted competition as the basis of industrial society. Smith first attracted public attention to the possibility of producing wealth beyond the dreams of avarice under a regime of free competition. Ricardo demonstrated that under perfect competition, wealth is distributed in accordance with natural and inevitable laws.

8. The Defects of Competition

Little more than a quarter of a century, however, after Smith had opened up the prospect of a new Canaan, bitter circumstances forced Malthus to investigate, not the causes of wealth, but those of poverty. These he might have found inherent in the theory of competition, but the influence of natural and inexorable law was too strong for him, hence he turned to the supposed natural facts of food-production and population, and obstructed the path of social progress for a generation.

Laissez-faire as a theory rested on certain assumptions:—(1) That all social phenomena conform to natural laws,

hence positive human legislation is unnecessary. (2) That there is a pre-established harmony between the enlightened selfishness of the individual, and the public welfare. (3) That men are by nature, roughly equal.

Now it may be conceded, within limits, that social phenomena do conform to natural laws. Otherwise, we are driven to one of two difficult alternative hypotheses: either that the social system is a continued and direct expression of the Divine Will, or that the whole scheme of things is irrational. In affirming that economic events conform to natural laws, the Physiocrats merely applied a principle which Montesquieu was using in politics, and on which Descartes had erected a theory of physical science.

But it is certainly untrue to assert that these economic laws are inexorable, immutable, and invariable as those of mathematics and physics. They are relative to conditions which can be modified by human volition. Positive legislation is necessary, for this is not the best of all possible worlds as the Physiocrats inferred; neither is man a puppet helpless before the forces of nature as in the philosophy of Ricardo and Malthus. Indeed, Mill, with the history of the Industrial Revolution before his eyes in 1848, found it necessary to confine the inexorable laws to production only, and to admit that the laws of distribution can vary with the social system.

The assumption of a natural harmony between private and public interests was a deduction from a now untenable view of human nature. To the seventeenth century contract school of Hobbes and Locke, man was primarily a rational creature, cognisant of, and pursuing under all circumstances, his true interests. But this is not in harmony with the facts, hence Rousseau was driven to make a distinction between man's true and false self. But man does not always perceive his true interests, still less does he invariably pursue them; neither is he motived exclusively by self-interest or utility. Experience teaches

that private interests are far more likely to encroach upon, than to further the public good, if allowed scope for free play.

The third assumption, that of natural equality among men, has a long history. It is a corollary of natural law, and was accepted in ancient times by the Stoics and the early Christian Fathers. In its modern form it was derived from the psychology of John Locke, who, anxious to refute the Cartesian theory of innate ideas, likened the mind at birth to a blank sheet of white paper. Quite unintentionally, no doubt, Locke struck a mortal blow at the theory of natural inequalities between individuals due to accidents of birth, but this psychology was necessary to the individualistic position.[1] Unrestricted competition between individuals can only be justified morally when the competitors are equal in all respects. Locke's theory, however, has long been exploded. Individuals are not naturally equal; they differ in intelligence and abilities very widely; hence, as the experience of the nineteenth century demonstrated, to subject each to unlimited competition is merely to sanction the exploitation of the weak by the strong. Humanitarianism proved too strong even for that age of Midas. Reason had to admit the peculiar position of children; the first Factory Acts undermined the *laissez-faire* principle at the very moment when complete victory was within sight.

The history of competition in the nineteenth century illustrates very forcibly the dangers of the over-simplification of economic problems. The theory was not wholly wrong, but the ethics of the jungle cannot be applied without reservation as the law of life in civilised societies. Human nature is, and perhaps necessarily so, at a certain stage of existence, self-assertive, but it is also sympathetic

[1] The Physiocrats did not accept natural equality in economic matters. They allowed unlimited rights of property to the individual.

and social, and these impulses are on a higher plane. Not only that, but principles, like concrete institutions, have a value only when related to special circumstances. The fundamental defect of the philosophers and economists of the Industrial Revolution was in supposing that unrestricted play for natural forces was equally beneficial in every stage of society.

9. Socialist Reaction

In the human misery of the early nineteenth century, the first seeds of socialism germinated. By the time that Ricardo had completed his *Principles*, and Malthus his *Essay on Population*, the sorry consequences of the wealth as an end in itself theory were visible everywhere. Man's new conquests over nature had contributed nothing to the welfare of the toiling masses, for in the midst of wealth produced on a scale little short of miraculous was a canker of misery and suffering simply appalling, and had not Locke, Smith, and Ricardo founded the right to property on labour? No wonder, therefore, that the socialists rejected absolutely the ideals of individualism and competition, and substituted instead the antithetic doctrines of universalism and co-operation. Not reason, but sympathy, was for them the cohesive force between men in society.

By the middle of the nineteenth century the socialist doctrine had obtained a firm footing in Germany and France. In England, due to the fact that down to 1870 we remained the world's workshop, while the struggle for subsistence was ameliorated by the imports of cheap food, progress in socialism was less rapid, but after 1880, even in England, unrestricted competition was no longer accepted, even in theory, without reserve.

10. The Decline of Individualism

The reason for this was that during the course of the nineteenth century, the theory of the State underwent a

total transformation. This was due to various causes. The necessity to remedy practical evils forced a continuous extension of the Factory Acts; the gradual extension of the franchise through the century made it increasingly difficult to shelve the just claims of the masses. But behind these practical influences was a reaction against individualism as a theory of the State and society. By 1880, it was no longer possible even if it ever had been so, to take a Robinson Crusoe view of society so dear to the early economists. Whatever else the Industrial Revolution has achieved, it had certainly reduced all classes to a state of economic interdependence, and the obvious fact that each had become dependent for the primary necessities of existence on a world-wide circle of fellow creatures made it logically impossible to postulate the individual as an independent, self-sufficient entity. At the same time, in the universities, was a revival of something akin to the old Greek view of the nature of the State. For Aristotle, the State, though subsequent in time, was yet logically prior to the individual, for it was only through and in the State that man could develop those higher powers of his nature that differentiate him from the brute beasts. This view of the State, far removed from the negative individualism of the eighteenth century, had momentous practical consequences. It conferred on it new dignity by investing it with the positive function of creating the conditions under which a full life in the true sense is possible for all, and it sponsored the principle that liberty is not the unfettered right of the individual to follow his animal propensities, but the right to co-operate with others in the achievement of a common end—the public good.

These theories have been examined in greater detail than is usual in a work on Economic History, but unless their significance is clearly understood, much of the economic phenomena of the nineteenth century must remain unintelligible.

11. The Redistribution of Population

Before passing to the technical changes in the textiles and other trades it is necessary to examine several other matters of general import. One of the most remarkable features of the period 1760-1830 was the extraordinary rapid growth of the population. This, in itself, was both a cause and an effect of the Revolution. The precise rate of increase of population during this period is difficult to determine. Reliable statistics are not readily available. According to Arnold Toynbee, the largest decadal increase of population prior to 1760 was 3 per cent. Between 1771 and 1781 it increased 6 per cent.; between 1781 and 1791, 9 per cent.; 11 per cent. between 1791 and 1801; 14 per cent. between 1801 and 1811; and 18 per cent. between 1811 and 1821. The figures are not above dispute, but if they are only very approximately correct it is not difficult to see in this remarkable growth the foundation of the population law of Thomas Malthus.

Parallel with this increase of population was a definite change in the centre of gravity of its distribution. At the beginning of the eighteenth century, population was concentrated south of a line joining the mouths of the Humber and Severn; mainly in an area bounded by the counties of Somerset and Wilts on the south, and by Warwick, Worcester, and Rutland on the north. The counties of maximum density were Middlesex and Surrey, but Suffolk was also thickly populated. The north-west Midlands, and the districts north of the Humber, were still mainly stretches of open woodland, barren heath, and undrained morass.

By 1760 a definite trend to the north and north-west had developed; and at the end of the century the density of population in South Lancashire was exceeded only by Middlesex, and equalled by Surrey. The Tyne Valley, West Yorkshire, Cheshire, Derby, and Staffordshire had also become populous centres.

The exact causes of this rapid increase of population over the country as a whole, and in particular districts, are largely conjectural. In the first place, down to the end of the seventeenth century, growth of population had been held in check, partly by periodical scarcities of foodstuffs, especially in the winter months, and partly by the constant ravages of such epidemic diseases as plague, cholera, and typhus. In the eighteenth century the ravages made by these diseases were less severe, to some extent this may be explained by the agricultural changes noticed in Part I. The introduction of root crops, especially turnips, allowed the feeding of cattle through the winter, and so made supplies of fresh meat and milk available all the year round. The effects of this in fortifying both young and old against the ravages of disease must have been very great.

In the districts where the factory system first took root, it was widely believed by contemporaries that this system was peculiarly favourable to growth of population. The new machinery did create an intense demand for child labour, and as these children were able to support themselves at an early age, and even to augment the family income, it was argued that marriage and large families was artificially stimulated. The opening up of the canals gave mobility for the first time to heavy building materials; this and the demands of the new factories for close concentration of the workers gave a stimulus to the erection of houses, which in turn rendered earlier marriages possible. The acute housing shortage that persisted through the Middle Ages has always been accounted a factor in keeping the population stationary in those days. In the South of of England the Speenhamland system of poor relief after 1795 has been cited as giving direct encouragement to the birth rate; while to the industrial districts of the North, Lancashire especially, there was a steady influx of immigrants from Scotland and Ireland between 1760 and 1800.

But the extraordinary growth of population in particular

districts, *i.e.* the North-West Midlands, Lancashire, and West Yorkshire, was mainly due to migrations from the country-side. As in Tudor days, the second half of the eighteenth century was a period of enclosure of common wastes and fields, and the new industrial districts were the only refuge for thousands of families thus deprived of their traditional occupations. The consolidation of scattered holdings into large capitalistically-managed farms rendered a good deal of labour superfluous. The loss of customary rights in the woods and wastes made it impossible for many who had previously eked out a scanty subsistence to remain on the land, and there was a steady drift to the new industrial towns of the north, both from the agricultural districts south of the Thames, and from the rural districts of their immediate neighbourhood.

Apart from the labourers, the small yeoman farmer disappeared from the country-side. The economic causes of this tragedy fall outside the scope of this chapter, but thousands of small freeholders sold their properties to tempt fortune in the field of industry. A small number did succeed in forcing their way into the classes of the manufacturers; the great majority, however, were quickly reduced to the condition of wage-earners, and absorbed within the ranks of the industrial proletariat.

The short distance movement from the rural areas to the towns was very pronounced in the cotton, woollen, and mining districts. Stalybridge, one of the mushroom towns of the Industrial Revolution, drew in domestic workers from all over Cheshire and South Lancashire; the new mining and smelting districts round Cardiff, in South Wales, absorbed the surplus labour, the young men especially, from the cloth-making villages of the West of England. Similar instances were common in Lancashire, the West Riding, and the Tyne basin, and to return to the line drawn from the Humber mouth to that of the Severn at the beginning of this section, the districts demarcated by this line

had exchanged places in relative importance, from the point of view of density of population, during the second half of the eighteenth century.

12. Steam, Coal, and the Revolution

It was not the factory system in itself that was the essence of the Revolution but the application of steam power to production. This was the fundamental change. A factory staffed by manual labour was a possibility realised in Tudor times by " Jack of Newbury," and many others, and instances of large-scale production in various trades were common during the seventeenth century. The Industrial Revolution hinged on power production; it is this which gives so important a place in the history of industrial technique to Arkwright's water-frame, for as its name signifies, it was designed to require non-human forces, and, after its appearance, industry made its first entry into the factory system in the modern sense.

The first factories using hydraulically-driven machinery were erected along the banks of the rapid streams on both the Lancashire and Yorkshire side of the Pennine watershed. But the application of water power fixed definite limits to the expansion of the system. A factory could be erected only by a strong, steady current of water; but during the winter months the water-wheel was liable to be put out of action by frequent floods, while during the dry summer season the motive force was often quite inadequate. A further disadvantage was that usually, where the water power was of sufficient strength, the geographical configuration of the neighbouring districts rendered transport difficult and expensive.

The fundamental fact that changed the course of industrial history was the invention of the rotary movement of the steam engine by James Watt, in 1782, and its subsequent application to the driving of machinery. Steam-driven machinery escaped all the disadvantages of water

power. It was independent of climatic vagaries; it was regular and controllable; and above all, it was applicable in a far wider locality. Steam-driven factories could be erected on sites specially favourable to the transport of raw materials, and of finished goods.

On the other hand factories widened the gulf between employers and employed. In the gild and domestic systems the line between the journeyman and master classes was never rigidly drawn, though with the development of the capitalistic system transition gradually became less easy and frequent. The reason was, of course, that so long as production was carried on by hand, or by small hand-worked machines, little capital was required for setting up business. Even the watermill in the upland valleys of the Pennines was a small affair; the number of machines installed was not large as a rule, and the necessary capital required was not impossible to obtain. After 1782, a new type of factory developed. The weight and vibration of the engine and gearing necessitated much larger and stronger buildings, and the substitution of iron for wood as the material of the machines. Not only that, but steam power could only be used economically when a large number of machines were employed. Factories of this type could only be erected and managed by a new type of capitalist, and employers and workmen became separated into rigidly distinct classes.

The application of steam power thus concentrated industry on the coalfields. This explains the phenomenal development of such areas as the Tyne Basin, South Lancashire, West Yorkshire, and the Black Country district of Staffordshire. Incidentally, it also accounts for the Industrial and commercial prosperity of England between 1780 and 1880, as until the exploitation of the vast coal deposits of the Appalachian regions of the United States, in the last quarter of the nineteenth century, England was the chief coal-producing country in the world.

The importance of coal in the industrialisation of England cannot be over-estimated. It was not only bound up with driving power, but was essential to the smelting of iron, and during the nineteenth century it became the primary condition of the new transport by railway, and the later steamship.

The coal and iron trades are inseparably connected. In various ways each acted and reacted on the other. Each advance in the mining of coal made possible a greater output of pig iron; every improvement in the iron trade called forth a speeding up in the production of coal, and out of these correlated developments sprang most of the new industries with which England had provided herself by 1850. Of these new industries, the chemical industry was of special importance. Beyond a certain point, further advance in the textiles was impossible with the old methods of bleaching, dyeing, and printing; they were too slow to cope with the increased production resulting from the new system. Equilibrium in the industry as a whole was only restored by the rise of industrial chemistry at the end of the eighteenth century.

Engineering and iron smelting, machinery and industrial chemistry, the basic factors of our modern industrial system, were all built upon coal, and each industry was driven forward by advances in the others.

13. The Slow Progress of the Revolution

The transition from the domestic to the factory system, from manual work to machine production, was a slow process, so slow that the very term revolution is misleading. It required a period of 70 years to bring the textiles completely within the ambit of the factory system, and in some of the other industries the rate of change was even slower.

There were various reasons for this. In the first place the new factories were far from popular with the domestic workers in the textile industries. The home worker was

often mercilessly exploited by the middlemen, probably in some respects far more than by the new type of factory owner. He worked long and irregular hours, and was often badly paid, but within limits, he preserved his independence. At home he regulated his work to suit his convenience, but once within the factory his hours were fixed by the running of the engine, and his speed of work by an inanimate machine. Factory work, too, appeared less dignified than the semi-independent work in the home; to many of the workers the system seemed but one step removed from the Elizabethan House of Correction, or the workhouse. The distaste of the domestic worker for the life of the factory was so intense, that, but for the steady influx into the new towns of Irish and English agricultural labourers, who were much less affected by the force of tradition, the staffing of the new factories, in their early stages, would have been almost impossible.

But there was a serious economic reason against the domestic worker entering the factory. Under the domestic system the whole of the family made some contribution to the maintenance of the group, not only the wife, but the children as well, as soon as they were able to walk. Many workers had also subsidiary employments, either on the land or elsewhere. Once within the factory, however, the regulation hours rendered subsidiary employments impossible, and the husband was deprived of the family contributions to his wages. It was not, therefore, until the gradual improvements in machinery created employment for the family within the factory that the domestic worker became reconciled to the new order.

The factory system was not immediately popular with all manufacturers. There was, it is true, the prospect of limitless production, and rapid fortune; but there were certain definite disadvantages. Under the domestic system even in the case of large-scale production, industry was subject to small risks. The manufacturer had little capital

locked up in buildings and machinery upon which he would have to pay interest; he was therefore relieved to some extent from the disabilities due to the fluctuations in the market. The surplus labour resulting from the rapid increase of population in the eighteenth century, and from the changes in agriculture, which had a tendency to lower the rate of wages was a further deterrent to the adoption of expensive machinery.

The turning point came with improvements in means of communications and transport, and with the introduction of machine-made tools.

The dependence of technical changes on cheap and rapid transport is obvious. The two basic factors, iron and coal, heavy and bulky commodities, were much too expensive to transport economically on horse-drawn wagons over bad roads; indeed, the Industrial Revolution was bound up with the problems of transport. Before industry could expand without limits, provision had to be made for regular and easy movement of vast masses of raw materials and finished goods,—coal from the upper valleys to the textile factories and iron works; bar iron from the blast furnaces, situated often in outlying districts, into the towns; china clay from Cornwall to the Potteries, and the finished wares to London in the South, and Liverpool in the North; raw cotton from Liverpool to the Manchester area; and building materials to all parts of the new industrial districts. But this movement would have been impossible but for the introduction of canals and railways which shortened the time of delivery considerably, and reduced the expenses of transit still more.

But for reasons which will be discussed in another chapter the canal system was suited only to the early stages of the Industrial Revolution. Canals could not be constructed everywhere; geographical configuration of the land confined them within strict limits. They were not designed with a view to future developments; hence, when more

rapid transport became vital to industry, mechanically-propelled boats could not be substituted for horse-hauled barges. But when Stephenson ran his first train in England, the Industrial Revolution had been in process of development for a half century, and the importance of railways on the industrial development of the country is so great that in some respects 1820 is a date even more significant than 1760.

The influence of railways on the Industrial Revolution is impossible to exaggerate. In comparison with earlier ages, they annihilated time and space. They not only allowed persons and goods to stream rapidly all over the country, but they reduced the costs of transport enormously. For the first time in history they gave mobility to perishable foodstuffs, and they made it possible to feed the ever-growing populations of the new towns and allowed that concentration of workers which is the first condition for industrial expansion.

Coinciding approximately with the invention of railways was another development not less significant—the invention of machine tools, indeed, without machine-made tools the railway locomotive would have been impossible. The building of the early steam engines bristled with difficulties, compared with which the invention of the model was a simple matter. The first iron engines and machines were constructed by smiths, that is, by manual labour. They were expensive, and difficult and slow of construction. The various parts were not fashioned to any standard specification, hence renewals of parts, and repairs, could not be easily made. The essential condition of cheap mass production which has rendered possible the motor industry of our generation was entirely lacking. And this was not all. Machine parts constructed by the eighteenth-century smiths were very inaccurate. An early machine or steam-engine might work when erected, or it might not; the chances favoured the latter contingency, at least, until after

adjustments sometimes extending over lengthy periods had been made. Even then, smooth working was not always assured; breakdowns were frequent, and an air of uncertainty enveloped the whole engineering industry. One has only to read casually the life of James Watt to realise the trials of the inventor before the era of machine-made tools and trained, skilled mechanics, and Watt derived many advantages from his association with Boulton, who had greater facilities for manufacture than most men of that time. Down to 1820, the use of the steam engine, and power-driven machinery was rigidly limited by circumstances which inventors could not control. It was the invention of machine-made tools, coupled with the introduction of mechanical transport after 1820, that gave the vital impulse to the Revolution.

14. The Consequences of the Revolution

The consequences of the Industrial Revolution were momentous. The early effects, however, must be clearly distinguished from the ultimate results. The first consequence was the creation of wealth on a scale little short of miraculous, but, owing to ideas, the philosophy of which has been sketched at the beginning of this chapter, the fruits went mainly to the advantage of a particular class only. A new social class came into being, a class that acquired vast riches in the course of a single generation. Favoured by the individualistic philosophy of the time, men of the people, whose only resources were ingenuity, self-reliance, energy, and business acumen unhampered by fine scruples, came to the front in a way that would have been impossible in any other age. Arkwright, the Preston barber, born in poverty, died worth half a million; Walker of Rotherham began business life in a one-roomed shed and left a princely fortune. And these examples can be extended indefinitely. Yeoman families like the Peels of Bury passed into the ranks of the landed aristocracy. The

spirit of adventure was quickened; limitless possibilities seemed open to all having initiative and energy to take advantage of them. The centre of gravity of economic power (and subsequently of political power, too) passed from the old landed gentry to the new iron magnates and cotton lords. Ultimately the rise of this new class had beneficial results, for by weakening the prestige hitherto attached to birth, and by breaking the monopoly of the landowning classes with respect to economic and political power, the gateway was opened, in the long run, to democracy.

Not only was the population of England redistributed regionally, it was redistributed occupationally. The number of industrial workers increased enormously; the agricultural population relatively declined. New occupations developed, new trades, new classes of distributors, transport workers, etc., and labour became narrowly specialised. The position of women was profoundly affected by the separation of the home from the work-place, for the wife was reduced to dependence on the husband's earnings. This position was modified later by developments in the textile industries.

In the waste lands north of the Mersey and Humber, in the valleys of South Wales, and in the north-west Midlands, new industrial regions developed, regions of limitless wealth. The old centres of industry became insignificant in comparison with the rising power of Birmingham, Liverpool, Manchester, Glasgow, and Leeds, towns which in the first half of the eighteenth century were mere overgrown villages.

Some of the immediate effects were far from happy. The breakdown of the mediaeval economy placed the worker in dependence on a speculative and fluctuating market just at a time when wealth, divorced from duties, was prized as an end in itself, and when unlimited rights of private property had the support of current philosophy.

The theory of unlimited rights of private property was not the least of the evils bequeathed by the Physiocrats. It was foreign both to the ideas of Classical Antiquity, and to the Mediaeval Ages; and to Montesquieu and Rousseau in the eighteenth century. But the Physiocrats, basing private property on natural law and the general interests, extended its rights without limits on the grounds that the resulting inequalities hold to the natural order of things, and to the nature of man. Great inequalities of wealth are necessary, so they argued, because they stimulate human activity, and because the great property can be better exploited in the public interest. The practical consequences of this doctrine created the social problem of the nineteenth century.

On the other hand, it must be remembered also, that if the working classes exchanged a relatively stable for a very precarious existence, and that if the wealth created by the new mechanical means of production was very unequally and badly distributed, in the long run, even the workers gained immensely from the new industrial order. The luxuries of kings in former ages became the comforts of working-class homes. At the beginning of the seventeenth century, few among the working classes wore stockings; by the middle of the nineteenth century they had become a conventional necessity for all, and what applied to stockings is equally applicable to dozens of articles now universal necessities. The philosophy of individualism, inimical to working-class interests in many ways, had yet one favourable reaction on them. It encouraged unlimited competition among the producers; combinations among manufacturers to restrict output and fix prices well above the costs of production, though not unknown in the coal and iron trade even in the seventeenth century, were on the whole, exceptional down to 1850. The result was that clothing and other necessaries of life possible to manufacture by machinery became abundant and cheap. Labour

undoubtedly became more monotonous, but machinery purged it of its most arduous features.

The importance of being able to satisfy the primary needs of life with a minimum of effort cannot be overestimated. It is obviously the first condition for advancement in civilisation. Unfortunately the education and leisure necessary for cultural improvement were withheld from the working classes until after the advent of democracy, late in the nineteenth century; but without the Industrial Revolution, that advent must have been postponed indefinitely, for it was the concentration of population in dense masses in the industrial towns that produced the spirit of class consciousness, so fruitful in democratic results later in the century. The worst evils of the Industrial Revolution, the appalling conditions under which production was carried on in the factories, the insanitary conditions in the towns, the low wages and long hours, the disabilities due to fluctuations in employment were transitory; they were not inherent in the system, but in the defective social ideas of the age. The gains, on the other hand, due to cheapness and abundance were permanent, though time was required for their full effects to be evident.

Even under the philosophy of individualism, the working classes would have made greater and more immediate gains but for the fact that two of their prime necessities of life, food and shelter, were not fundamentally affected by technical changes until very recent times. Food was certainly cheapened and famine averted by large-scale farming, mechanical transport, and free trade. But free trade in food did not exert its full effects until after 1860, and it is only within very recent years that mechanisation of foodstuffs production has made great progress. This applies with equal, if not greater force to housing. Even to-day, although wood-working machinery has made enormous strides since 1870, labourers' dwellings are still erected by hand labour. House rent still accounts for a

high proportion of working class expenditure. It is considerations of this kind that have made many people argue that so far as the working classes are concerned, the advantages of the Industrial Revolution have been exaggerated.

It has also been doubted if the excessive industrialism and narrow specialisation into which England has been led is altogether without disadvantage. Most European countries took measures to protect its peasantry, but in England at the beginning of the present century the small proprietor-cultivator had disappeared. The small proprietor vanished from English soil in the early years of the nineteenth century without lament, largely because of the influence of the doctrine of Smith and Ricardo that nations should confine their production to that form, or forms, in which they had the greatest comparative advantage. This doctrine, once venerated almost as a natural law, has been challenged on the widest of grounds, those of national culture. Excessive specialisation, so runs the argument, has the same baneful effect on the mind of the nation as it has on that of the individual. Productive powers, said List, are of greater national importance from a cultural point of view, than mere exchange powers, a reflection doubtless suggested by some observations of Montesquieu on the position of Poland in the eighteenth century. The familiar cry of " away from the city; back to the land," rests on a principle even more fundamental than the desire to make secure supplies of food in times of war.

In a certain sense the Industrial Revolution had its democratic side, but this applies mainly to the early stages. After 1820, the phenomenal rise of an Arkwright from the lower rungs of the industrial ladder into the ranks of the large-scale employers became increasingly difficult, if not impossible. In the early stages of the Industrial Revolution very modest beginnings were possible especially in the textile trades. Starting with a few machines in a single

room, it was not impossible, after a few years of thrift, to acquire power machinery out of the profits. But the rapid increase in the size of the profitable business unit, the ever-increasing cost of machinery and power, the size and strength of the factory necessitated by the steam engine, and the large circulating capital needed to finance current business, all combined to sharply differentiate the two classes of employers and employed once the Revolution was fairly under weigh. After 1820, perhaps even earlier, large-scale business passed under the control of a new aristocratic class. Some of the social problems created by this transition will be dealt with in later chapters.

15. Later Developments

The Industrial Revolution may be said to have run its course by 1850. Since that time, change has not followed any direction fundamentally different; though this does not altogether apply to organisation. Inventions there have been, and will be; yet none of them have had any startling effect in comparison with the phenomena of the Industrial Revolution.

Electricity meant a wonderful advance, but it is comparable with steam, while steam is utterly different from animal power. It seems that invention in the future will be more a matter of business, just as gold nugget finding has been replaced by safe industrial extraction processes. Every large firm employs scientists who are always ready to make a little progress by sound methods, though this applies with greater force to Germany than to England. New raw materials are constantly being discovered. Cotton is hardly altering as regards process, but new varieties are being discovered; it is largely used as a substitute for silk (mercerised cotton), and it figures in most " woollen" goods. The silk industry is not holding its own here, Milan and Lyons have secured an impregnable position. Wool is of surprisingly diverse character from the high

quality Huddersfield goods down to the Batley " shoddy," though even here, goods of really good quality are often made by this process of using old cloth.

The iron and coal industries tend to be conservative; they have been in the hands of rich men, and in many cases there has been no effective stimulus to improvement. Hardware, on the other hand, is in a progressive state, especially in the Black Country, while the Potteries, though they have lost their dependence on the local clay which first made them what they are, yet are progressive. The position of engineering in all its branches needs no comment; any attempt at description would be ludicrously inadequate.

In one respect, however, fundamental changes have taken place. The individualistic philosophy in which the Industrial Revolution was born and reared has given place to a very different conception of the nature of society. There are, of course, many shades of opinion; some thinkers like the extreme idealists, the English inheritors of the Hegelian tradition tend to absorb the individual completely within the State; others, more moderate, preserve for him some measure of independence. All agree, however, that society is something more than a mere mechanical association of abstract individuals loosely bound only by the ties of self-interest or the necessity for protection. All recognise that society, if not an organism, as Spencer argued, has a character definitely organic, hence the pursuit of wealth is no longer regarded as an end in itself, but as a means for the promotion of human welfare. In this respect we stand poles apart from the English economic philosophers from Adam Smith to Mill. Since 1870 we have moved from the ideal of unlimited, unrestricted competition, to that of the sympathetic co-operation of all classes of society towards the good of the whole.

It is true that the transition is not yet perfect. Traces of the old callous individualism can still be met with in

daily experience. Nevertheless, a wide and deep gulf separates English thought of the present day from that of 1800. The right of all to good life in the higher sense of Aristotle is now freely recognised. Industry and commerce have been humanised; the appalling conditions of labour in the early factory system have been transformed; the common amenities of social life, public health, sanitary housing, education, and leisure have been brought within the reach of everyone, and old age and infirmity are now a charge on the State.

CHAPTER II

THE COAL AND IRON INDUSTRIES

1. The Steam-Engine

The Industrial Revolution hinged on steam power. It was not the early inventions that drove even the textiles into the factory, but the invention of machines necessitating motive power other than human hands. Expansion, however, was possible only within rigid limits until water power was superseded, as water power was subject to stoppages from frost and drought. In addition to that, water power, as a rule, was only available in places to which communication was difficult. Horse power, of course, was much too expensive for general use.

The steam-engine, therefore, really decided matters. This invention made deep coal mining possible, and this in turn required more machinery, and thus indirectly influenced all departments of industry. The iron trade became extremely important, and as most of the ore was found in proximity to coal, industry moved to or near the coalfields. These occur in a U-shape, very broken, stretching from Cumberland, through Lancashire to the Midlands, and round by Yorkshire and Durham. The wool industry, dominant for centuries, lost pride of place, and even as a textile was soon easily beaten by cotton.

2. Early Inventors: Savery, Newcomen, Watt

The steam-engine, then, is the key to the Industrial Revolution. A reference has been made to the early inventors in Part I. The Marquis of Worcester (1663) produced what was probably the first working steam-engine, but it was little used. Papin, inventor of the famous "digester" for boiling water under pressure, made an

engine, but its value was theoretical rather than practical. He suggested that the expansion of steam might be used to move a piston, while its subsequent condensation would cause a partial vacuum and the piston would return. The weak point was that he used the same vessel as the boiler to obtain the steam and as the condenser in which the expansion took place. He used the clumsy method of lighting a fire under his boiler, and when sufficient expansion had occurred he removed the fire and allowed the steam to condense of itself. He worked his engine about 1690.

Savery (1698) was the first who actually used an engine for practical purposes. He accepted Papin's vacuum theory and developed it. He applied the engine to the pumping of water out of mines. This was the sole use to which the steam-engine was put until Watt's invention was well known.

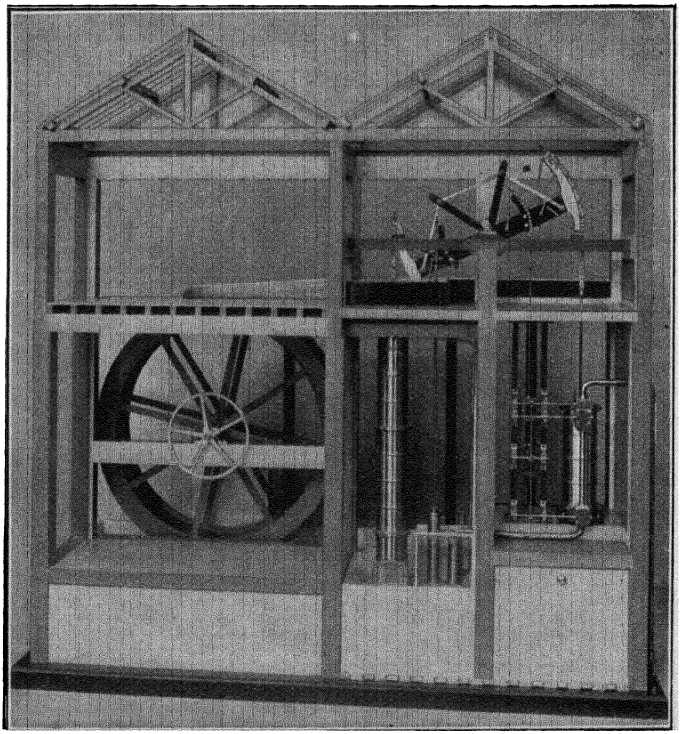
Newcomen is the greatest name before Watt. He separated the boiler and cylinder. The boiler was placed over a large fire, and opened upwards by a narrow mouth, which could be closed by a stop-cock, into a large cylinder in which was fitted a piston, kept tight by percolation of water at the sides. This was connected to a piston rod which joined on to a " beam " movable about the middle, the other end carrying a weight. When the weight fell, the piston was lifted, and vice versa. Steam issued from the boiler and rose into the cylinder, pushing up the piston when the pressure was high enough. The steam was then condensed artificially, at first by the cooling of the outside of the cylinder, and then by means of a spray of water inside it. As this was done, the stop-cock leading to the boiler was closed, a partial vacuum was produced, and the piston fell, to be raised again when the stop-cock was opened. The strokes were slow, but then they did not require a high pressure of steam, little more in fact than the pressure of the atmosphere. The one essential objection to Newcomen's engine was its expense, so much fuel being used.

Watt (1736-1819, born at Greenock) marks the next enormous advance, though Smeaton had improved on Newcomen. Opposed by the gilds, he was helped in his investigations by Glasgow University; at last he had the chance of repairing one of Newcomen's engines. He took the opportunity to study it and to experiment; he found out certain general principles and applied them to Newcomen's engine. He then suggested improvements and constructed a model, and finally his great engine, perfected between 1763 and 1769.

Certain principles he laid down which must apply to all steam-engines, and they are still followed. First, the cylinder itself must be at least as hot as the contained steam, as otherwise the condensation will occur when not wanted. Next, the vessel in which the condensation necessary for the vacuum takes place must be at least as cold as the surrounding air, as otherwise the condensation will not be complete. Last, the pressure inside the condenser must be as low as possible; that is, substances which cannot be condensed, such as air, must be pumped out.

These principles could only be observed by separating the condenser from the cylinder, just as Newcomen had separated that from the boiler. The cylinder and condenser could now be kept at different temperatures. The latter was made air-free by means of an air pump worked by the engine. The cylinder could be kept hot because it was removed from the condenser, and this prevented loss of heat by condensation within it. The cylinder was covered, and lined with a steam jacket. Steam above the piston pushed it down; when the upper and lower parts of the cylinder became connected, steam escaped down and then into the condenser, and the piston was raised by the weight of the beam. As in Newcomen's case, the opening and shutting of the valves was automatic; the story is that a boy looking after one of the earliest engines

saved trouble by connecting the valve with the beam. The net result in practice of Watt's work was that he obtained faster strokes with little more steam pressure and, which was most important, far less fuel.



"OLD BESS."
Model of a pumping engine put up by Watt in 1777.

The later stages may be more briefly dismissed; no subsequent improvement produced the same effect as the earlier inventions.

3. Later Progress: Trevithick, Boulton, Watt, and Murdock

Trevithick in 1800 invented a non-condensing, high pressure engine. Before that Hornblower (in 1782) had used a double-cylinder engine, in which two cylinders were used at different pressures. The result was that there were less fluctuations in temperature in the different parts of the two cylinders. Every change in temperature, except the one during condensation, had a wasting effect, so that although the invention had little immediate result, it was used in 1845 by McNaught, and the improved engines of that time were further bettered. A high-pressure cylinder brought its action to bear on the beam, and the steam escaped into the second low-pressure cylinder.

The most important steam invention since Watt is that of the steam turbine. Steam of itself, when allowed to expand, can do much work in the expansion, as in the case of the kettle-lid. If, in addition, the steam is moving with a high velocity, far greater results follow, and the effect may be so great as to overshadow that due to mere expansion. It is a combination of the steam-engine and the water-mill. A jet of steam issuing out of a small hold impinges against a flat, movable surface. The importance of this invention for speedy ships (1884) need only be mentioned.

But to return to Watt. The turning of the invention into an industrial and commercial success was mainly the result of his associations with John Roebuck of Carron, and Matthew Boulton of Soho, Birmingham. It was Roebuck's financial help that allowed Watt to erect his first steam engine near Edinburgh, but it worked so defectively that it had to be abandoned. In 1773 Roebuck became bankrupt, and some years later, Watt drifted to Birmingham, where he entered into partnership with Boulton. This partnership had momentous consequences, for Boulton had not only ample means, but also the best technical resources of that time at his disposal. The first

steam-engine made at Soho pumped water from the Bloomfield collieries near Birmingham; and the first application of the invention to purposes other than the pumping of water was an engine constructed to blow the blast furnaces of Wilkinson, the iron master, at Broseley. In 1777, the firm began to make engines to pump water from the Cornish tin mines, and the difficulties experienced through defective workmanship amply illustrate the trials of the inventor before the era of machine-made tools. Fortunately for Boulton and Watt, they had an invaluable foreman, William Murdock, a very remarkable man who built a working steam locomotive in 1784, and lighted the Soho works with coal gas in 1798.

It was a suggestion of Murdock's that led to Watt's second patent, that for rotary motion. It was on this patent that Watt's claims to immortal fame rest, for until that time he had merely improved upon the work of others. With the invention of rotary motion, the steam-engine was transformed from an improved water pump into a source of power that could be applied to drive machinery. It thus entered industry as a revolutionary agent. The firm used it in the Soho Foundry for working hammers, rolling mills and bellows, and it was quickly adopted by the iron masters of the Midlands. Other industries to make early use of the invention were the flour mills and flint crushing mills of London and Staffordshire.

The steam-engine entered the textile industry in 1785, when Robinson opened a steam spinning mill at Papplewick. Other well-known spinners to follow this example were Robert Peel, Drinkwater, Samuel Oldknow, and Richard Arkwright. In the Yorkshire wool trade the steam-engine was less favourably received. Buckley made a premature attempt to introduce it into Bradford in 1793, but in spite of opposition it had gained a foothold in the Leeds district by 1800. After the end of the Napoleonic Wars, steam began to be widely adopted as motive power,

but even so late as 1830, probably one-half of the textile mills still depended on water.

4. Coal

The coal industry of the Tyne valley originated in the age of Elizabeth, and coal was widely used as fuel in London in the seventeenth and early eighteenth centuries. The invention of the steam-engine gave an impetus to development in two ways. It made deep mining possible, and it created an unlimited demand for coal as fuel.

Even a perfect engine is practically useless without coal or a substitute. The growth of the steam-engine is dependent on the presence of fuel. In our country, however, forests were limited, while oil and natural gas were unheard of. Hence we were thrown back on coal alone.

Most English coal is found in hilly country, where it occurs in thin sheets never more than a few feet thick, almost level for short distances, but broken by " faults," where the seam suddenly breaks off and runs on at a higher or lower level. To-day this is no obstacle, as the succession of strata is so well known and the faults are so regular that the miner knows just in what direction to dig. The coal often occurs on opposite sides of a valley, and wider breaks are found, *e.g.* we find the same coal seam at towns so distant as Wigan (Lancashire) and Barnsley (Yorkshire). For a century before 1760, some progress in mining had taken place. First the surface coal was extracted, and then shafts were sunk. When the seam was at last worked out, another was opened up below. This was generally followed in one direction to the slope of a hill, or a short cut was made through the soft, shaly rocks.

Thus seam after seam was reached, and the water could drain away through the openings, or at worst, could be pumped up to a higher level. When a seam was reached which did not lead into the open, the workings had to be stopped, partly because of the difficulty of raising the coal,

but mainly because the bottom of the mine became filled with water percolating through the overlying rocks.

5. Coal and the Steam-Engine

It was to this difficulty that we owe the invention of the steam-engine, and, as has often proved the case, an invention for a relatively unimportant purpose has had epoch-making results in another direction. The steam-engine made the railway possible, but this again was indebted to the coal and iron which were first raised in sufficient quantities by the aid of the steam-engine. At first the engine was used simply for pumping purposes, and very rarely for raising the minerals. Water accumulated slowly and spasmodically, hence hurried action was not required. Therefore a slow-moving engine was demanded, and the extreme importance of clearing the mine made expense no object in many cases. Hence the practical importance of the earlier engines.

A sudden demand for coal arose, and the spurs of the Pennines, in spite of their infertile soil, acquired a new value for their coal, their building stone, and their fire clay. Land in these districts rose immensely in value, or rather its value became negligible, while the mineral rights underneath, valued separately, sold for huge sums or brought in great fortunes. The famous Low Moor Mines near Bradford, with their combination of the purest coal, and a very pure limestone, have made many princely fortunes, and the miners shared in the prosperity.

6. Mining Improvements: Organisation

Down to 1830, mining engineering remained in a primitive state. Until about 1810, pillars of coal were left to support the mine roof; after this time the gradual introduction of wood props effected considerable economies. In 1830, the steam boring machine was first used, and in

1815, the Davy safety lamp, which allowed deep workings to be exploited, was invented. After 1820, underground mechanical haulage gained its first footing, and pits over 1,000 feet deep began to be sunk.

In many districts, however, shallow workings were the rule down to 1840; some of the South Wales mines resembled stone quarries, and shallow well holes, four or five feet in diameter were common on every coalfield south of Durham.

Down to 1850 the Tyne valley was the principal centre of the industry, yielding about one-fourth of the whole supply, and South Wales was less important than Yorkshire and Lancashire. Deep pit sinking was the result of improved mining engineering in Durham and Northumberland.

Before 1830 the general method of raising coal was by means of ladders fixed to the pit sides, but by 1830, small winding engines began to supersede ladders in the more progressive pits, and after 1840, the horse-power of these engines was gradually increased and coal could be hauled to the surface from greater depths.

The early winding engines hauled a hempen rope to the end of which was fastened a basket. A great advance was made in 1835, when Hall of Durham introduced the metal cage, and after 1840, wire ropes were adopted by many northern collieries.

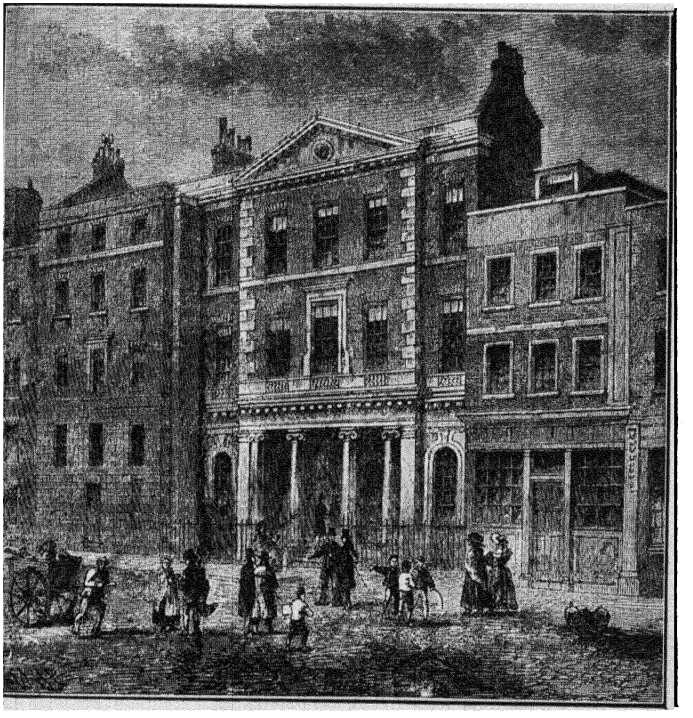
But the main problem of the early nineteenth century was that of ventilation, for explosion is the great enemy of the miner. The Davy lamp was only a partial remedy; it had little serious effect until ventilation was improved. During the early stages of the Industrial Revolution, the usual method of obtaining a current of air was by placing small fires at suitable points. About 1840 a more effective method was devised. A furnace was built at the bottom of the ventilating shaft, and a stronger and more regular current of air was obtained. This method, however, had serious disadvantages for the ventilating shaft frequently

clogged with smoke, and differences of atmospheric pressure often reversed the currents. After 1850, therefore, the practice was employed of generating currents of air artificially by means of high-pressure steam, air-pumps, and fans.

With the boring of much deeper shafts in the second half of the nineteenth century, the problem of ventilation became still more important owing to the frequent explosions from firedamp. After 1860, Waddle and others so improved the fans that mechanical ventilation became all but universal. Between 1860 and 1890, various attempts were made to mechanise coal cutting. Donisthorpe patented a piston-driven pick in 1861, and rotary cutters were tried about 1876. Pneumatic drills and picks had come into use by 1900, but even to-day, though progress has been made since the war, most of our coal is still hewn by manual labour.

The Newcastle coal trade had always been strongly organised, and the " Vend " Committee was still powerful at the beginning of the nineteenth century. Each month, the Committee fixed prices, and the amounts that might be sold, but after 1830, the competition of the inland coalfields, first made possible by canals, and intensified by the introduction of the railway system, gradually broke up the monopoly. London coal was distributed by the big merchant who sold to smaller men. Direct purchases by the consumer, apart from a few large manufacturers on the water side, were negligible, until after the advent of the Gas company. Inland, the coal was shipped along the canals, and often passed through many hands before reaching the consumer. After 1850, the merchants, instead of buying direct, began to purchase from agents of the owners on the Coal Exchanges. They also began to sell direct to the consumer instead of to the smaller merchants, although they did sell to dealers, at the wharf or railway siding, who in turn retailed the coal to the public.

Inside the mine, employment was either direct, as in Northumberland and Durham, or under the butty system. The butty system was general in the Midlands throughout the nineteenth century, and under it, a contractor engaged



THE OLD COAL EXCHANGE.
Early Nineteenth Century.

with the mine owner to deliver coal at a fixed price per ton, the butty hiring the labour and providing the tools necessary for the working. It was under this indirect system that the worst evils of the industry, exploitation of the

worker, lack of precautions against accidents, and payment by " truck " developed.

7. Gas Lighting, Electric Lighting, By-Products of Coal

In the second half of the nineteenth century, two subsidiary industries developed on coal. Lighting by gas was due to William Murdock, who lit up the Soho works of Boulton and Watt in 1800. After 1850 the steady increase in gas consumption provided a new outlook for the coal mines, but down to 1880 the only method of illumination was the open burner. In 1885 Welsbach invented the incandescent mantle, and the use of gas for lighting extended rapidly; and by the end of the century the internal combustion engine, and the introduction of the gas-stove, created new employments.

Electric lighting made slower progress. Davy had produced an arc light from voltaic cells and charcoal electrodes as early as 1810, but it was not until 1870 that the Gramme dynamo provided an economic method of generating current. In 1879 Siemens made further improvements, and Edison and Swan produced the incandescent carbon filament lamp in 1883. In the first years of the present century electric traction received an impetus. The electric tram superseded the horse and steam vehicle, and London suburban lines were electrified. During the second half of the nineteenth century the electric telegraph and transmarine cable revolutionised communications.

Between 1856 and 1870 the chemical contents of coal were discovered. Chemical fertilizers were produced from coal by-products as well as anilene, anthracene, and naphthalene. Perkins discovered methods of producing mauve, magenta, and Turkey red, but their manufacture subsequently passed mainly into German hands.

8. Iron

Another condition for industrial development, besides the existence of coal, was the presence in large quantity

of a hard, workable metal. Iron had been a declining industry since the destruction of the forests. The sources of ore, outside the Weald, were by a happy coincidence mainly on the coalfields in England, South Wales, and the Scotch Lowlands. In addition, iron was also found in Northamptonshire, in Lincolnshire, at Barrow, and in Cleveland (North-East Yorkshire). On the coalfields it was found as very hard, brownish-black nodules, as big as a man's head, embedded in a soft black shale, the whole occurring in layers like coal seams. The purest was found near Bradford; the nodules were placed on large " hills " and exposed to the weather. The upper ones were " scaled " with a hammer till the ore was exposed, when it was carried to the furnace. The process has changed little to the present day. English iron ore has now competitors in the " bog iron ore " of Sweden, and the ore of North-East Spain.

During the Industrial Revolution the blast furnace assumed practically its present form. Carbonic acid gas from limestone acts on hot coke, forming carbon monoxide, which reduces the ore to iron. The iron is then carbonised by the remaining coke, the limestone also helping to keep the mass liquid. The industry grew up where iron ore, coal, and limestone could be obtained near one place. Hence Cardiff, Barrow, and Middlesbrough (where the three are brought together cheaper than in any other place in the world) grew rapidly in the nineteenth century, while Northamptonshire and Lincolnshire, without coal, progressed slowly, as did South Lancashire, without limestone. Much coke is wasted in making carbonic acid gas. Attempts, though costly and fruitless, were made to obviate this by increasing the size of the furnace, but mathematical chemistry has shown that wastage is unavoidable.

The process produced hard, or " cast " iron, excellent for many purposes, but brittle. When all the carbon impurities were removed, " soft " or wrought iron resulted;

this could be worked, being malleable, but would not keep its shape under strain. Steel was a compromise, and later became a necessity. Wrought iron was made by "puddling" the melted iron in the "pig" with long bars of iron or pieces of green wood until the impurities were burnt away.

The changes in the production of iron centre round three processes—the use of coal in blast furnaces, the use of coal in forges, together with the application of methods of puddling and rolling, and the application of steam power to manufacture.

9. Inventors in the Iron Industry

(1) EARLY INVENTORS. Some reference has already been made in Part I. to the attempts to smelt iron with coal between the close of the Civil War and 1760. Dudley, 1619, first used coal for smelting, but he was opposed by the charcoal burners, and was hampered by lack of funds. He used a second blast, and claimed to produce iron with coal at two-thirds the old price, but he died without disclosing his secret to the world. His experiments attracted close attention, and two contemporaries, Buck and Dagney, tried to separate the ore from the coal by putting it into earthenware crucibles, but without success.

After Dudley's death, a German named Bauerstein erected a furnace at Wednesbury (1677) in which the flames only licked the ore. The attempt was not a success as the sulphurous vapour ruined the quality of the iron. In 1726 Wood of Whitehaven substituted coke for coal and tried to produce pig iron by mixing ore with powdered coke in a furnace similar to Bauerstein's. About the same time, Fallowfield made a second abortive attempt on the same lines.

(2) THE DARBYS OF COALBROOKDALE. It was left to a family of iron masters at Coalbrookdale in Shropshire to find the solution. About 1709 the first Abraham Darby

brought over from Holland the process of making castings in sand. He successfully smelted iron ore with coal first coked to cinders, but it was difficult to get a sufficiently strong blast to obtain the necessary heat from coke, and some of the ore was left unsmelted. Between 1730 and 1740 the second Darby improved the method of coking, strengthened the blast by means of bellows worked by an old Newcomen engine, and prevented deterioration of the metal during smelting by the use of limestone. The blowing apparatus was perfected by John Smeaton at Carron in 1760, who introduced a compressed air pump which produced a constant blast with a pressure of two or three atmospheres.

Darby's invention led to a great increase in the production of cast iron for cooking utensils, stoves, boilers, and fire-grates. After 1770, cast iron began to be used for water pipes and for railways from coal mines. During the American War of Independence, cast iron cannon were made at the Carron Works at Falkirk, and by Bacon of Merthyr Tydfil, and Walker of Rotherham. In 1779 the first cast iron bridge was erected across the Severn by the Coalbrookdale Company.

(3) HENRY CORT. The next stage was to convert the cast into malleable iron. The old method was to refine it in the open hearth, but only small quantities could be produced, and only charcoal could be used. Roebuck tried unsuccessfully to refine cast iron by means of coal at Carron in 1762; four years later, the Cranages made an abortive attempt at Coalbrookdale. Several years later, Peter Onions of Merthyr Tydfil solved the problem, but it was not from his hands that the process entered industry. The method of puddling will always be associated with Henry Cort, who patented his process in 1783. Cort noticed that when the fuel was in contact with the ore, the iron was carbonised and hard. Hence he constructed a reverberating furnace in which the flame alone touched the

ore. The furnace was closed and the fairly pure iron ran melted into a hollow at the bottom. A small hole was opened and the fused metal was stirred, until it " boiled " owing to the evolution of carbon monoxide, which burned with a blue flame. The mass, becoming pasty, was brought out in lumps and treated with the hammer. This process is still used.

Cort also invented grooved rollers instead of hammers to roll out the pasty iron, and his work was utilised by Watt, who was working with Roebuck at the Carron Iron Works. Watt could not obtain a cylinder suitable; if soft, it lost its shape, and if hard, it could not be made true. When Roebuck failed, Watt joined Boulton in Birmingham. Here a cylinder was bored for him by Wilkinson, who had invented better machinery, and Watt at last made a satisfactory engine. Wilkinson had, above all others, seen the future possibilities of iron; it was he who advised the building of the first iron bridge, made at Coalbrookdale.

Cort's process was a commercial success immediately. At Crawshay's works in South Wales the production of bar iron went up from 10 to 200 tons per week, and as a result of the invention the production of bar iron could increase at the same rate as that of cast iron.

10. The Steam-Engine and Iron: Huntsman

The iron trade was affected by the invention of the steam-engine in two ways. In the first place, the production of coal was cheapened, and the steam bellows strengthened the blast and aided the making of coke. Secondly, the application of steam power to the processes of hammering and rolling reduced the expenses of production considerably.

While the Darbys were solving the problem of producing a cheap cast iron, a Doncaster clockmaker, Benjamin Huntsman, was reforming the production of steel. The method of producing steel, which from a metallurgical point of view is an intermediate state between cast and

wrought iron, was to heat bar iron in a charcoal furnace for twelve days. This heating, by increasing the carbon in the iron, hardened the metal. Huntsman improved this process by smelting the iron at a very high temperature in sealed fireclay crucibles into which he also put small quantities of charcoal and ground glass. This steel was named cast or crucible steel, and being both flexible and tenacious, was suitable for watch springs and knives. Huntsman did for the steel trade what Cort did for malleable iron, and his process had important reactions on the Sheffield cutlery trade.

11. Machinery, 1760-1800

The revolution effected in the production of iron in the last decades of the eighteenth century was due to improved processes of manufacture, not as in the textile industries, to the introduction of machinery. At the same time, however, machinery entered the processes of manufacture to some extent. The size of the furnace was increased, and Smeaton strengthened the blast by means of compressed-air cylinders. Cort used mills for rolling the puddled iron, and Watt invented a steam hammer which was introduced into the Wilkinson ironworks. Of not less importance was a new method of boring cylinders, invented by John Wilkinson, which remedied certain defects due to inaccurate workmanship, and which made the steam-engine a commercial possibility.

But perhaps the most important development was the first introduction of machine-made tools between the years 1790 and 1800, although they did not come into general use until after 1820. The first great name was Joseph Bramah, who invented the wheel-cutting machine, the hydraulic press, and several appliances necessary to the making of machine-made locks. In conjunction with Henry Maudslay, he also invented the heavy screw-cutting lathe, and the slide rest. The slide rest was only a device

for holding the tool against the work, but its importance is difficult to over-exaggerate. Naysmith said, years afterwards, that the slide rest was an invention comparable in importance with that of the steam-engine. About the same time, an invention was patented by Clifford for the manufacture of machine-made nails. After 1790, metal began to supersede wood in the construction of machines. This was an innovation of the first importance, for wooden parts worked very inaccurately, and wore out quickly. Cast-iron flywheels came into general use before 1800, and about that time Rennie introduced machinery and gearing made entirely of iron into some flour mills in London.

12. Machinery, 1800-1856

After 1800, machinery made rapid progress in the iron industries, and the era of machine-made tools was at hand. In 1808, Maudslay, in partnership with Brunel, revolutionised the method of block making, and invented a mortising machine which suggested to Roberts, the inventor of the self-acting mule for spinning, the device of metal slotting. Roberts also played an important part in the invention of the planing machine. Some years before this, another inventor, Clement, greatly improved the efficiency of the lathe.

The main lines of advance between 1830 and 1850 were in the direction of greater accuracy of work. Roberts introduced standard templets for the reproduction of machine parts, and Whitworth's various devices made future standardisation possible. Two important innovations affecting the production of raw iron were Neilson's Hot Blast (1829) and Naysmith's Steam Hammer (1842). The hot blast had far-reaching effects in Scotland, where it made possible the use of Scotch coal without first being coked; and the steam hammer removed the difficulties which previously stood in the way of producing very large iron bars.

13. Engineering Inventions after 1850: Bessemer, Siemens, and Gilchrist Thomas

The period 1850-1880 may be described as the age of Whitworth, for during these years he created the modern science of engineering. He invented numerous devices both for the handling of metal, and for the making of exact measurements. By 1850, his measuring machines and gauges, working to the ten-thousandth part of an inch, had come into use, and by 1870, largely through his inventions, machine parts had become interchangeable. It was thus no longer necessary, as in the time of Boulton and Watt, to fit the parts of each machine separately, and the way was opened to the complete standardisation of the present day. During these years, Armstrong was applying the principles of hydraulics to cranes, lifts, pumps, drawbridges, and other types of mechanism at Elswick, near Newcastle. In 1865, he patented a process for the manufacture of compressed steel which revolutionised the manufacture of guns, and the shafts used in marine engineering. The primary tools of the engineering shop made no fundamental changes, but by 1900, hydraulic machinery had come into general use for riveting, punching, and drilling.

In the second half of the nineteenth century the methods of producing bar iron changed little; perhaps the most important innovation was a device for mechanical puddling. Steel production, on the other hand, was changed fundamentally. In 1856 the wonderful Bessemer process for making steel was invented. Pig iron was run into a pear-shaped converter and air was blown into the base. This oxidised (burnt) silicon and other impurities, and the heat thus given out was sufficient to burn the excess carbon impurity without fuel. The process was stopped when the right amount of carbon was present. The converter was then tipped and the fused steel cooled and worked.

Unfortunately sulphur and phosphorus were still present in the steel made from most English ores, hence the Bessemer process had a limited value.

In 1864 Siemens invented the rival open-hearth method. A mixture of wrought and pig iron in the right proportions was fused and worked as in the other process. The Siemens method enabled varying degrees of hardness to be given to the steel. In 1879 an important advance was made by Gilchrist Thomas, who removed the phosphorus from the ores by means of a basic lining of limestone which absorbed the impurities. This new process not only gave a value to ores previously unusable but also created a slag valuable as manure.

Since 1880 development has chiefly taken place in obtaining new sources of supply of ore, in small improvements, and in the use of science, especially chemistry. The old metallurgy was empirical, *i.e.* experimental in a casual fashion; men accidentally discovered new processes. Now, inventions are methodically thought out. Each species of iron and steel is at once recognisable under the microscope, and corresponds to a definite chemical constitution, so that laboratory experiments can show how certain varieties can be obtained.

Bessemer gave to England a new industry. The price of steel fell 50 per cent., and it was possible to supply steel rails of a much more durable quality at a lower cost than in wrought iron. Cheap steel reduced the expenses of production of machinery very considerably, and our exports of machines increased enormously. It also made possible great improvements in the size and strength of engines and boilers, so that railways and shipbuilding gained a great deal, and for twenty years England enjoyed a practical monopoly of the new process of production. In one direction, however, the new process had a disadvantage. British ores, with the exception of the Cumberland district, contained too much phosphorus for the

Bessemer converter; hence we became dependent for raw materials on the ores of Sweden and Spain. To some extent this was subsequently counteracted by the Gilchrist-Thomas process which made commercially usuable the Cleveland deposits of North-West Yorkshire. Unfortunately for England, this process also unlocked the door to the vast deposits of phosphoric ores in the United States and Germany. The ores of Lorraine, which up to that time had been practically valueless, became commercially important, and rendered Germany the largest single source of iron in continental Europe. England's position was thus gradually breached, and although her absolute output of steel continued to increase, by the end of the nineteenth century her relative production was far below that of America and Germany.

14. Organisation of the Iron Trades

Cort's invention, and the application of power-driven machinery led to specialisation in the iron trade. Down to the middle of the eighteenth century the iron worker was the general smith, but with the Industrial Revolution new classes of workers appeared—puddlers, who stirred the molten metal in the furnace; rolling men, who treated the metal after it had been hammered; and various other classes of skilled, and semi-skilled labourers. Differentiation also began with respect to occupations. Down to 1800, smelting might, in places, be carried on as a separate business, but more usually it was combined with casting, rolling, and other finishing processes.

By 1840 smelting had become a specialised process, and this in turn had important consequences. The size of the furnace began to increase rapidly and the high cylindrical form came into use. In addition to this increase in productivity of the single furnace, the size of the business unit itself became much larger, and this meant more furnaces per firm. In the early years of the nineteenth

century few, even of the larger firms, had more than three furnaces, but by 1840, a great iron master like Guest of Dowlais, for example, had eighteen in blast. The output of raw material increased enormously. In 1802 the 168 blast furnaces of Great Britain had an annual production of only 1,000 tons of pig iron; in 1850 the output was over 2,000,000 tons. These figures give some idea of the astonishing rate of progress during the first half of the nineteenth century, and productive capacity and output continued to expand down to 1880. After that date the rate of increase declined in consequence of the new American and German competition which gradually forced us off the lower grade lines. England, however, has more than held her own in the production of the finer types of steel. The foundations of the tungsten-chrome cutting steel metallurgy were laid in Sheffield about 1870, when Musket discovered that carbon steel could be rendered much harder by the addition of tungsten, and then cooling the mixture from a yellow heat in a draught of air. In 1880 a further improvement was made to this result by the addition of small quantities of chromium, and by the end of the century Sheffield was producing a cutting steel that defied the competition of the rest of the world.

From the first developments of the metal trades there was a strong tendency to large-scale integrated units. This phenomenon, so marked to-day, was in evidence even in the seventeenth century. The Darby family, by 1784, owned 8 blast furnaces and 9 iron works round Coalbrookdale, drew their raw materials from their own coal and iron mines, and had branch establishments in London, Liverpool, and Bristol. John Wilkinson owned great iron works round Broseley, Bersham, and Bradley; supplied his blast furnaces with coal from his own mines, and had large interests in the iron trade of South Wales and France. In South Wales, during the latter part of the eighteenth century, Anthony Bacon held the lease of all the minerals

for miles around Merthyr Tydfil, and built up a vast iron-producing business largely on government contracts for munitions of war during the American struggle for independence. Offshoots of Bacon's business were the later huge concerns of Crawshay, John Guest, and Anthony Hill. In Scotland, Roebuck founded the great Carron iron works near Falkirk in 1760, a gigantic business with multifarious interests; and in Yorkshire, Samuel Walker started the Rotherham Ironworks in 1748, and forty years later, Hardy and his partners opened the Low Moor Ironworks near Bradford. Walker's Ironworks at Rotherham was a highly-integrated concern comprising coal and iron mines, furnaces, forges, plate mills, and foundries.

These early great businesses differed fundamentally from the modern company. They were owned and controlled by a few individuals working in partnership, and their phenomenal rise was due to the unique opportunities for making rapid fortunes during the transition period of the Industrial Revolution.

After 1860, the combination movement in both the horizontal and vertical directions became very strong in the metal trades, though small firms were still numerous at the end of the century in the lighter branches in the Staffordshire and Hallamshire areas. Producers' combinations to effect price-fixing agreements became very important. As in the case of the coal industry, this was not exactly novel in the iron trade, for the South Staffordshire iron masters had been in the habit of fixing quarterly prices since 1820. Between 1860 and 1870, the Cleveland Iron Masters' Association was formed to regulate the prices of pig iron, and the North of England Association to determine current prices of manufactured goods. The sharp fall in prices after 1875 strengthened the hands of these associations, and in 1881 the Cleveland and Scottish iron masters agreed to limit and reduce their output. In 1884, during the worst period of the depression, the Cleveland

Association closed down blast furnaces and compensated the owners. Two years later, producers began to negotiate for a national agreement to limit output, but before any settlement could be reached, trade revived and prices rose. The serious competition of German, American, and Belgian steel makers after 1875 forced the English manufacturers into close association in 1883, and for a brief period a cartel arrangement was entered into by England, Germany, and Belgium to divide the steel rail market. The agreement, however, was not a success, and in 1886 it was dissolved.

The principle of voluntary association in all the branches of the metal trade made rapid progress between 1860 and 1900. The British Iron Trade Association, like the Mining Association of Great Britain, attempted a general supervision over the whole industry; and each subsidiary branch of the trade developed a producers' association. Individualism, even in the productive branches of industry, began to lose the respect it had commanded in 1850. Pressure of foreign competition had necessitated new conditions.

The tendency to large-scale business and combinations was also influenced by factors other than foreign competition. Industry tends naturally to evolve in the direction of the "optimum unit," and that unit, in trades where a large amount of expansive plant is required, tends to grow larger with successive discoveries and inventions. Down to 1860, expansion beyond a certain point was limited in most cases by the difficulty of finding the necessary amount of capital, but with the evolution of the joint-stock company with limited liability one important check on expansion was removed.

This consideration applies to many industries, but there were special reasons for the general tendency to vertical integration in the iron and steel trades of Great Britain. In the first place the market conditions for raw materials, and for intermediate products, such as pig iron and steel,

are very unstable. The large fixed capital employed in the industry exerts pressure on the owners to keep the plant running so long as prime costs can be covered. If the production of raw and intermediate stages of materials is in the hands of specialised firms only, the market tends to be glutted periodically when the producers of finished goods slacken their rate of production. In the same way, it is impossible for the producers of finished goods to take advantage of expanding markets should the output of raw materials diminish for any reason.

Another advantage, and one perhaps even more important, is that vertical integration allows several processes to be performed with one heating of the metal. Where basic operations are performed by specialised firms, the metal is heated for smelting, then for converting into malleable iron or steel, and again for converting the ingots into finished products. Under vertical integration the ore goes to the blast furnace, and the molten pig, while still at full heat, is refined, drawn out into ingots, and then sent to the rolling mills. In this way, enormous economies are effected in the consumption of fuel, the most important element of costs in the industry. Waste heat and gases can also be utilised to an extent impossible in the case of a specialised firm. The rolling mills, hot blast plant, and general machinery, can be very largely supplied with power by the use of gas and heat from the coke ovens and blast furnaces necessary to produce the pig iron. For these reasons, as well as for others more obvious, the whole of the processes from the mining of iron ore and coal, to the completion of the marketable product, tend to pass under single control, as in the typical example of John Brown and Co., of Sheffield.

15. Localisation of the Metal Trades

Once the problem of the coal smelting of iron ores was solved, the industry concentrated naturally on the coal-

fields, especially those of South Staffordshire, the Glamorgan Valleys, Monmouthshire, the Tyne Valley, South Yorkshire and Lancashire, and the Scottish Lowlands. The finished products of engineering industry changed little in location during the nineteenth century; on the other hand, there has been a general tendency to movement of the smelting industries towards new areas of ironstone, and towards the sea, since 1850. Perhaps the most striking phenomenon in the history of the industry during the second half of the nineteenth century is the extraordinary rise of iron mining and smelting round Middlesbrough and Barrow; and the movement of the South Wales blast furnaces from the upland districts to the Lowlands near Newport and Cardiff, a movement due to the enormous quantity of ores now imported from Spain. After 1860, the iron deposits of North Lincolnshire, Leicester, Rutland, and Northampton began to be utilised. Most of these ores are smelted in the older centres, though blast furnaces have been erected at Frodingham and Scunthorpe[1] in Lincolnshire, and between Kettering and Wellingborough in Northampton.

In the coal industry, the deep boring method which has transformed Doncaster in the present century, and which may have the same effect in Kent, marks a new phase in mining, of which the importance is not yet sufficiently appreciated.

[1] Smelting at Scunthorpe has developed rapidly in recent years.

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CHAPTER III

THE TEXTILES AND OTHER INDUSTRIES

1. Introduction

The Industrial Revolution had momentous consequences for the textile trades, consequences which outwardly, at least, were manifest earlier, and were certainly more spectacular than in the metal trades. No industry, with the exception perhaps of industrial chemistry, could be described as wholly new in the second half of the eighteenth century; but in 1760, coal and iron were relatively insignificant in comparison with the textiles, the cloth trade having a history extending back to early Plantagenet times, and occupying for centuries second place only to agriculture.

Textile inventions were not unknown before 1760; neither was the factory system altogether a novelty. Instances of large-scale production under one roof developed during the sixteenth century,[1] and in the first half of the eighteenth century the modern factory, in all its essentials except steam power, made its appearance in the silk trade.

2. The Lombes

This was the work of John and Thomas Lombe, who brought over from Italy designs for silk-throwing machinery, and erected a factory driven by water power near Derby. Some authorities regard this mill as the first factory in modern England. It certainly was a new departure, and

[1] Part I., Chapter IV.

probably marks the beginning of factories in the silk industry. Lombe's machines were not mere tools assisting the manual worker to greater productivity, they performed the work automatically, the human worker being restricted to the specialised function of knotting again the broken threads. By 1760 there were silk mills in existence employing as many as 800 hands in such places as Derby, Stockport, Macclesfield, and London. The silk-throwing machinery did not, however, stimulate inventions in the finishing branches of this industry; weaving, for example, continued to be performed on hand looms under the domestic system with the result that expansion was hampered for half a century.

3. Cotton

Cotton is the textile which the Revolution dominated. Its manufacture was nearly new here, the foundations having been laid by the introduction of East Indian Cottons into Europe. The product was useful and capable of almost indefinite expansion, for the raw material could be readily obtained. In South Lancashire the climate was just moist enough for fine spinning, and only inventions with requisite power were needed.

The cotton plant contains the raw material as a loose ball; this is cleansed, otherwise treated, and sent to England ready for spinning. Spinning consists in giving the fibres a twist so that they can be entangled to form yarn, a long thread ready for weaving. Weaving consists in the laying of parallel sets of strands at right angles to each other (warp and weft), one set in the line of the weaver, the other perpendicular to the first, the warp and the weft entangling to form a broad sheet of cloth. The yarn is wound round a shuttle, the movement of which (right to left and back), determines the destination of the yarns.

Cotton had been imported here from early times, chiefly from India. The industry began, probably in a small way,

after the immigration of persecuted weavers from the Netherlands in the sixteenth century. Gradually it centred in Lancashire, and after 1700 drove the wool industry over the Pennines, climate and the position of Liverpool probably being the determining factors It was the prohibition of the import, except for re-export, of printed cotton goods from the Far East that gave the vital impulse to the Lancashire trade. After the prohibition, English women who had grown accustomed to the wearing of cotton garments, turned to the Lancashire product of mixed cotton and linen.

The introduction of textile machinery was a slow and evolutionary process, but the spectacular success of certain inventions has obscured this truth. Inventions in the cotton industry were only perfected after numerous complementary devices had been applied to the original machines. The transformation of the industry was not sudden and violent as was implied by the early writers on the Industrial Revolution.

4. John Kay of Bury

The first of the so-called Great Inventions occurred in the wool trade. In 1733, John Kay of Bury invented the fly shuttle. Formerly, the weaver took the shuttle on one side, and threw it between the alternate threads of the warp, catching it in the other hand, and then closing up the weft. Kay arranged that only one hand should be used for the shuttle, the other being left free for the weft. The weaver pulled a stick which jerked a string attached to it, causing a hammer to push the shuttle on one side.

By 1760, the fly shuttle had come into use in the cotton trade, and the weavers needed more yarn than the spinners could supply. Inventive genius therefore turned to spinning, which was revolutionised by three inventions, with the result that English spun yarn was not only sufficient for home needs, but provided a surplus for export.

5. Spinning Machinery

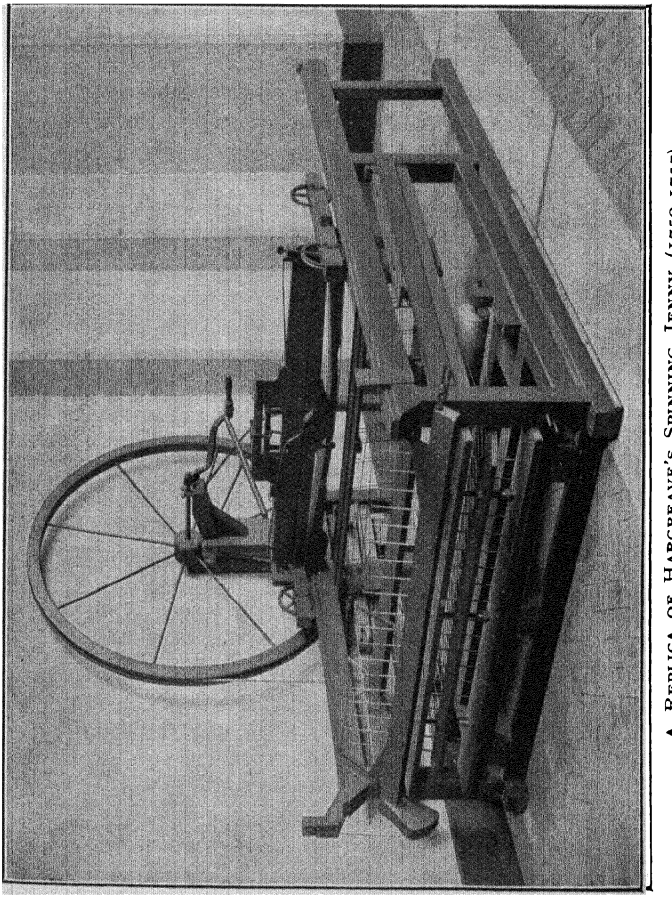
The exact origin of the spinning machine is a matter of dispute, but the first use of rollers is associated with the names of John Wyatt and Louis Paul. Wyatt, a native of Lichfield, was drawn into partnership with Paul, who assisted him financially, and probably improved the machine. Two pairs of rollers were used, working at different speeds. The first, moving more slowly, delivered the thread, while the second pulled the " sliver " forward at a slightly quicker pace, and thus stretching the yarn.

But before the cotton could be spun, all the lumps had to be combed out of the raw material by a process called carding. This preliminary operation was done in the home until Paul invented a cylindrical carding machine, which he patented in 1748. The inventions of Wyatt and Paul were not a commercial success, probably because the inventors lacked the necessary capital and business acumen, but their machines were installed in a factory in Birmingham, and some years afterwards in a factory at Northampton, where 250 spindles were driven by water power. This Northampton venture was the first power cotton spinning mill in Europe.

6. Hargreaves of Blackburn

The first really practical success in spinning was gained by Hargreaves, who invented the hand " jenny," which spun eleven threads instead of one. Like most inventors, he reaped little harvest, and died in poverty. It is supposed that a spinning wheel, which was accidentally overturned and which continued spinning with the spindle, gave him the idea that the same wheel could drive many spindles.

He experimented with a horizontal wheel and a number of vertical spindles and was so successful that the number was ultimately increased to 100. The quality of the yarn was unaffected by this invention, and like the old yarn, it was only suitable for weft.



A Replica of Hargreave's Spinning Jenny (1750-1757).

7. Arkwright and Crompton

By 1760 the problem of spinning had become so urgent that the Society of Arts offered prizes for a spinning machine. Most of the designs submitted were of no importance, but the attention of a man named Highs or Hayes was turned to the problem. Highs constructed a machine for spinning cotton by means of rollers, but did not follow up his invention through lack of funds. The significance of Highs in the history of spinning is that his model was probably the beginning of Arkwright's water frame, if not the actual basis of the design. Arkwright of Preston is the greatest name in the history of spinning. The original model of his machine can still be seen in the South Kensington Museum. It differs in details only from the invention of Wyatt and Paul. In his water frame he carried on the principle of the pairs of rollers; the upper one was covered with leather to grip the thread, and the lower was ridged to allow the thread to pass through. Before Arkwright's time the roving process for obtaining warp was carried on by hand; the warp could now be produced by the water frame. The necessary hardness and firmness were produced by differences in the speed of the rollers. The invention was a machine in the modern sense of the term, intricate in structure and delicate in action.

Arkwright possessed what was lacking in Paul, Wyatt, and Hargreaves; he had sound business capacity. He succeeded in interesting a Preston publican named Smalley in his projects, and through his influence funds were obtained from Nottingham bankers. Unexpected difficulties in the working of the invention caused their support to be withdrawn, but Arkwright managed to secure the co-operation of Need of Nottingham and Strutt of Derby. Strutt had some knowledge of mechanics, and his study of the model resulted in a number of useful suggestions.

In 1771 a spinning mill was erected at Cromford on the Derwent, and the success of this enterprise was due not

only to business capacity, but to the fact that the water frame produced a yarn sufficiently strong to dispense with the mixture of linen. It was therefore possible in future to produce English fabrics of pure cotton and equal in quality to the products of India, and if Arkwright was not the real inventor of the spinning machine he must be recognised as the founder of the modern English cotton industry. In 1778 he patented further inventions—the carding machine, the crank and comb which detached the carded cotton, the roving frame for twisting the carded cotton, and the feeder, which carried the raw cotton to the carding machine.

Like most innovators, Arkwright was faced with violent opposition on the part of competitors. He was accused of appropriating the ideas of less fortunate men, and in 1785 he was deprived by Parliament of his patents. But he still remained the largest cotton spinner in England, and in partnership with Daniel Dale he founded the New Lanark mills in Scotland, and established another at Bakewell. He first made use of the steam engine in his Nottingham factory, and when he died in 1792 he left a fortune of half a million pounds.

The water frame came into general use very rapidly, because of its ease of construction. No special craft skill was required for its reproduction; the machine as first used could be built by carpenters and blacksmiths, hence a manufacturer who attracted away one of Arkwright's workmen could easily duplicate the patent.

The peculiar significance of Arkwright's invention is that it was designed to be driven by power, as the name water frame implies. The earlier inventions merely increased the productive capacity of the domestic worker; the novelty of Arkwright's innovation was in the application of machinery to what was then being accomplished by hand. He therefore revolutionised the spinning process and transferred it from the home to the factory.

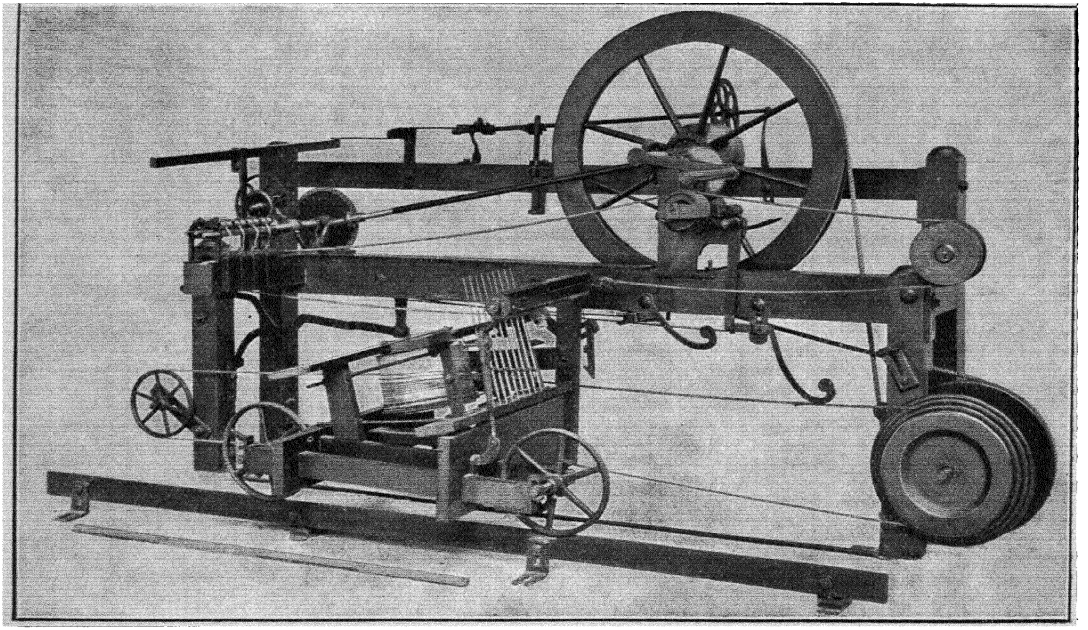
Arkwright, however, did not produce the fine yarn necessary for delicate fabrics In 1763, Shaw of Bolton began the manufacture of muslins in England, but this industry was dependent mainly on imports of fine yarn from India. A fine yarn was produced by the jenny of Hargreaves, but in insufficient quantities for this device required so much attention from the spinner that the output of yarn was not greatly increased.

The production of fine yarn on a large scale was achieved by the mule invented by Crompton (1753-1827). Crompton, a native of Bolton, invented the mule in 1779. It was a combination of the principles of the jenny and the rollers, hence its name. In addition, it was fitted with a spindle carriage, his own invention. This, in receding, caused a gradual extension of the thread, a fine and delicate warp resulting. Like the jenny, the first mules were made of wood, but in 1783 an improved design with metal rollers and wheels was made. In 1790 William Kelly invented the automatic mule fitted with several hundred spindles, and by 1800 the mule had displaced the jenny in the cotton trade.

The mule was an epoch-making invention. Its product not only surpassed the best East Indian yarns, but was finer than was possible to spin by the human hand. It must therefore be regarded as one of the most important of the textile inventions, and its development profoundly affected the course of the cotton industry, not only in England but all over Europe, for it delivered the Western world from permanent dependence on India for fine fabrics and yarns.

8. Whitney's Saw Gin

Power spinning received a powerful impetus at the end of the eighteenth century through an invention which revolutionised the production of raw cotton. During the greater part of the century supplies of raw cotton from



CROMPTON'S MULE

So called because it combined the principles of the jenny and the water-frame.

America were limited to the long fibre, or sea island cotton, which grew only in certain favoured places. Whitney's saw gin, for separating the cotton from the seed, made the use of the short staple cotton an economic possibility, and as the short staple cotton could be grown profitably in all the Southern States, America began to export practically unlimited supplies of raw materials.

9. Weaving

The net result of these changes was that the supplies of yarn were immensely increased and cheapened, so that equilibrium between spinning and weaving was again disturbed. Inventions were therefore called for to expand the production of cloth, as otherwise yarn would be exported and the weaving of it carried out elsewhere.

The problem, if difficult, was not impossible; indeed, the motions of the two frames on which the warp was stretched, and the shuttle which passed between them had been applied to the weaving of ribbons on the Continent in the seventeenth century. But the process was complicated, and little advance was made until Edmund Cartwright (1743-1823), a clergyman with no special technical knowledge, attacked the problem. In 1785 he designed a power loom which could be worked from a single centre, but it was of little value. With fuller knowledge, and examination of other looms, he corrected his mistakes, and gradually a serviceable loom evolved. In 1787 a small factory was opened in Doncaster, worked by a steam-engine brought over from Birmingham, but the enterprise failed and the inventor was almost ruined. Cartwright, however, invented a wool-combing machine, which later had fruitful results.

It was in Scotland where the power loom first achieved commercial success, and in 1793 Robertson set up looms at Glasgow and Dumbarton. One defect of the early loom was that it had to be stopped frequently to dress the warp

as it unrolled from the beam. This difficulty was partly overcome by an attachment patented by Radcliffe and Ross, which dressed the warp before it was wound on the beam, but the device was really the work of one of their employees, William Johnson. Between 1803 and 1813 Horrocks of Stockport produced an efficient all-metal machine, and with it, the power loom assumed its modern form. Horrocks himself derived no profit from the invention, but his ideas were developed by Roberts and Sharp, who placed an improved model on the market in 1822 This machine was the first capable of competing seriously with the hand industry, hence its importance. The power loom, however, did not approximate to its modern form until after 1840, when Kenworthy and Bullough of Blackburn invented a loom with a self-acting temple, stop, and taking-up motion. This loom reduced the labour of weaving considerably, and made possible a much greater production of higher-grade cloth.

10. Printing and Dyeing

Between 1780 and 1800 great improvements were made in the finishing branches of the cotton industry. Down to 1783 printing had been done by handstamping, a costly and laborious process. In 1783 Thomas Bell introduced copper cylinders in a revolving press, and this labour-saving device was quickly in use all over Lancashire. Of even greater importance was the application of chemistry to bleaching, for Tennant of Glasgow, by making a commercial use of Berthollet's discovery of the bleaching properties of chlorine, in 1799, shortened the process from months to days.

It was this discovery that allowed the earlier stages of the cotton industry to expand so rapidly after 1800, for the process was subsequently developed by Thomas Henry of Manchester. About the same time, Taylor, also of Manchester, succeeded in producing the " Turkey Red "

dye, which quickly rivalled the Indian prints; scarlet, green, and yellow dyes for linen and cotton also came into use.

11. Later Progress

The slow progress of the Industrial Revolution, even in the textile industries, is emphasised by the fact that the domestic system and primitive tools persisted in the Lancashire cotton trade down to 1830. There were plenty of wooden jennies turned by hand in the Lancashire mills in 1824, for the automatic metal mule was in use in the more progressive factories only. The self-acting mule of Roberts, 1825, and subsequently improved in 1830, was the most important cotton trade invention of the first half of the nineteenth century, and in some respects was a great advance on that of Crompton, as its working was purely automatic. Indeed, it was the 1830 improved model that made spinning a genuine steam-power process.

Progress since 1830 has been rather in the direction of gradual improvement than in epoch-making inventions, but it has been real. The great rise in the price of raw cotton during the American Civil War (1861-1865) stimulated the introduction of improved machinery, especially for the spinning of new and difficult fibres. Thus the system of "Ring Spinning," which made it possible to revolve the spindles at incredible speeds, came to be adopted. Other devices which came into general use about this time were the weft-stop motion, the double-acting Jacquard loom, and Heilmann's cotton-combing machine, which automatically separated the long fibres necessary for fine spinning. In 1905 the first electric spinning mill was opened at Pendlebury near Manchester, and the example has been followed elsewhere. The trade is still progressive, though it is temporarily depressed at present on account of the unrest in the Eastern markets, and the new competition of Japan.

12. Wool

In the wool trade, inventions made slow progress, but all the improvements used in the cotton industry could be used for any flexible, thread-like material, so that the trade was gradually industrialised, especially in the West Riding which possessed water-power and coal.

There were several reasons why progress in wool was slower than in cotton. In the first place, the woollen industry was much more widely diffused; technical improvements therefore spread only very gradually; indeed, Kay's fly-shuttle did not penetrate the villages of Somerset and Wiltshire until 70 years after its invention. A second reason was that weaving labour was much more plentiful in the woollen districts than in the cotton, especially in the period following the Napoleonic Wars. But much more fundamental was the difficulty of increasing the supplies of raw wool. Cotton-plant areas of cultivation could be extended almost indefinitely in the course of a few years; it was quite otherwise with wool, hence it was not until after large supplies were available from Australia that the factory system gained a firm foothold on the wool trade.

In addition to these, there was a reason of a different order. The cotton trade was a relatively new industry; the woollen trade, on the other hand, was hampered by an age-long domestic tradition which made its workers specially reluctant to enter the factory. The hand-loom weavers were a restless, independent class, and it was difficult to force them within the ambit of the factory system until improvements in the power-loom, about 1840, drove the hand-loom from the field. A final cause, and one which no doubt accounted for the continuance of primitive tools even in Lancashire down to 1830, was the difficulty of obtaining reliable machines owing to the lack of trained, skilled mechanics.

The spinning jenny did not come into general use in Yorkshire until 1785, about the time that it was being

superseded in Lancashire by the mule and the water frame; in the South-West of England woollen districts, the opposition of the domestic workers was so strong that it was not widely adopted until 1790. The jenny did not further the progress of industrial capitalism. It was merely a more efficient tool, not a labour-displacing machine; hence it was by no means unpopular in West Yorkshire, where small master spinners were to be found in every village.

13. Benjamin Gott

The first Yorkshire spinner to use power on a large scale was B. Gott, who installed engines by Boulton and Watt just before 1800. He carried out many experiments in chemical dyeing, and was one of the founders of the modern industry of Leeds. Fisher, Brook, and Hirst were other pioneers of power spinning in the Leeds district; indeed, Hirst claimed to be the first spinner to use the mule in the wool trade.

By 1810, many Yorkshire manufacturers were using the mule for spinning and the fly-shuttle for weaving; progress, however, was slow, for even so late as 1850, much yarn used in the wool, as distinct from the worsted trade, was still spun by hand. In this branch of the wool trade, until 1850, power machinery was used mainly for carding.

14. Worsteds

Originally the woollen and worsted trades were distinct. In the former, the shorter, and in the latter, the long staple wool was used. Now, all lengths of wool can be used for worsted, so that the distinction is replaced by that between worsted fibres that are straight, and can be combed parallel, being woven as usual, and woollen fibres which are curled, and may be felted into a cloth by being heated, moistened, and beaten.

The worsted trade was handicapped by the fact that the

worsted fibres, especially in colonial wool, could not be combed so as to lie parallel. English wool might be treated by machinery in some measure, but foreign wool needed combing by hand, which process was too costly, and which also placed the masters at the mercy of the combers who were very strongly organised.

This state of things was first altered by Cartwright's combing invention which came into general use between 1825 and 1840. Cartwright tried two methods, the vertical and the horizontal circular. The former passed into the hands of foreign manufacturers, but the latter was developed in England by Lister and others.

15. Samuel Lister and Sir Titus Salt

Samuel Cunliffe Lister, afterwards Lord Masham, obtained two or three distinct fortunes as a result of his many inventions. He made a success of machine combing about 1850, and hence gradually obtained control over the combing industry in which position he was followed by Sir Isaac Holden. His process was suitable for all long wools, for mohair, from the Angora ram of Asia Minor, and alpaca, a Peruvian sheep-like animal. This invention was succeeded by Holden's method which was adapted to short, good quality wools. Both these processes were later superseded by the Noble comb, invented by one of Lister's mechanics, and which was applicable to any length, and any kind of wool. Hence the distinction, in the old sense, between woollen and worsted disappeared.

The object of combing was to obtain the long fibres only in a parallel form called the "top," throwing out the shorter and curly ones as "noils." The former could be used for worsted, and the latter could be felted; the top produced a showy cloth, and the noils a more lasting.

Lister's great rival was Sir Titus Salt. In 1836 a quantity of coarse wool was stored away in a Liverpool warehouse, little valued because of the trouble and expense of

working it. Salt heard of it and bought it at a low price. He made experiments, patiently and exhaustively, and showed that it could be worked up satisfactorily. Hence he made a new woollen industry, of which the centre was, and is, at Bradford.

In 1853, after almost deciding to retire, he originated the most complete model manufacturing town in the world, Saltaive, devoted to Alpaca. He built a model factory and took an unheard interest in his workpeople. In the social history of the nineteenth century he holds a high place. Alpaca lost its novelty, and manufacturers introduced mohair, a similar product, and made yet another woollen industry. This was carried on in the same district, and often in the same mill as alpaca-weaving.

In the wool trade, as in the cotton, weaving entered the factory much more slowly than the spinning. So late as 1841 the vast majority of the woollen weavers were outworkers, and even in 1850 the number of power-looms in the wool trade was almost negligible compared with the cotton industry.

16. Linen

The linen branch of the textiles was never so important in England as in Scotland and Ireland, partly because those countries had superior facilities for the growing of flax. The first flax-spinning machinery was invented about 1787 by Kendrew and Porteus of Darlington. John Marshall of Leeds made several improvements, but his machine was only suitable for coarse yarns. Down to 1826 the use of machinery was rendered difficult by the sticky nature of the fibres. This difficulty was surmounted by Kay's process of preparing the flax, the introduction of which practically killed hand-spinning by 1840. Power loom weaving of linen was not introduced until 1840, but hand-looms, though fast disappearing, were still used in Dundee and Dunfermline in 1867.

17. Hosiery and Lace

The hosiery and lace industries of Leicester, Nottingham, and Derby remained outwork trades down to the middle of the nineteenth century.

Framework knitting was first made possible by William Lee's knitting frame in 1589. The frame was a hand machine, but sufficiently expensive to prevent many of the workers from owning it, therefore it was usually hired from the manufacturers, a rent being paid for the use of the frame. In 1758 Strutt invented an attachment for making ribbed stockings, and some years later, modifications of the frame were introduced which paved the way for the machine-made lace. The employer owned the raw material and usually exacted a rack rent for the frame, one of the main sources of the Luddite troubles.

These trades began to feel the effects of machinery after 1850, and the lace trade was included within the scope of the Factory Act of 1861. Steam was applied to the stocking frame by 1880, but progress was slow until after 1874.

18. The Localisation of the Textile Industries.

By 1850 the textile industries had become concentrated in certain definite areas. Ninety per cent. of the cotton workers lived in an area comprised of South Lancashire, North-East Cheshire, and the extreme west of Yorkshire. In Scotland, two-thirds of the industry centred round Lanark. The woollen industry was more scattered, but the factory worsted trades were completely concentrated in the Aire valley of West Yorkshire.

In a similar way the hosiery trade, which originally centred round London, had become localised in Leicestershire and Nottinghamshire. To some extent the reasons for this localisation are clear. The hosiery trade had gravitated towards the sources of its raw materials—the worsted yarn of Yorkshire, the cotton yarn of Lancashire,

and the silk yarn of Manchester and Derby. The climatic peculiarities of Lancashire and Lanark and the convenience of Liverpool and Glasgow as centres of import for the raw cotton of America, rendered these places naturally favourable to the cotton trade. The West Riding Valleys had easy access to the main sources of English wool, and raw materials from Australia could be readily imported via Hull. All these districts, too, had abundant supplies of coal.

But specialisation in the textiles has gone far beyond a mere general localisation of industry. Leicestershire, for example, has specialised in woollen, Nottingham in cotton hosiery. Halifax, Bradford, and Huddersfield now restrict themselves to worsteds, Leeds to woollens, and Dewsbury and the Batley districts to shoddy. In the Lancashire cotton industry, spinning has specialised into two distinct types, fine yarns only are spun in Bolton and Manchester; Oldham and Ashton spin coarse yarns. Weaving is mainly carried on around Blackburn and Preston.

This intensified specialisation is not easy to explain. There is no reason to suppose that it is the result of arbitrary or conscious forces. The most probable explanation lies within the range of accidental circumstances.

Down to 1860, although it was possible to find examples of very large-scale business in all the textile branches, the small private firm predominated. In the Yorkshire wool trade, the private company mill was the usual form of organisation before 1850. A number of clothiers would each subscribe a small amount of capital, build a factory on mortgage, obtain the necessary machinery on credit, and rely on a paid manager. As these informal joint-stock enterprises had no protection in law, frauds were common. Deeds of partnership did not come into regular use until after 1825.

Flax and silk mills were usually on a larger scale than in the wool trade, especially those engaged in the weaving of cheap silks and Irish poplins. The early difficulties in

the way of obtaining machinery forced a close alliance between the cotton and textile machinery trades. Some of the largest present-day firms in the Lancashire cotton industry were founded originally by textile machinery makers.

After 1850 the size of the business unit in the textiles, particularly in the cotton spinning and worsted branches, grew rapidly. The passing of the Limited Liability Act changed only slowly the character of the textile firms; the family business, or the partnership with unlimited liability for all shareholders continued to be typical in the cotton and woollen trades down to 1880; Lister's Manningham Mills at Bradford remained a private concern down to 1889.

Joint-stock limited liability enterprise and the consequent tendency to the amalgamation of small business units made the greatest progress in the cotton-spinning area round Oldham. Under the principle of limited liability capital began to be raised in new quarters—in small amounts from small investors—a turning-point in the financial history of the country.

The nineteenth century witnessed the rise of the cotton broker, and a scientific market for the distribution of raw cotton developed after the laying of the trans-marine cables. The Liverpool Cotton Brokers' Association began to regulate supplies of raw materials, and future dealings gradually smoothed away much of the former uncertainty from this side of the industry.

19. Revolution in Pottery

In addition to the metal and textile industries, the Industrial Revolution transformed the Pottery Trades. All industries that were gradually reorganised on the basis of mass and cheap production had important reactions on the comfort of individuals; cheap cotton clothing, and the introduction of earthenware pottery into the houses of the very poor had a significance difficult to over-estimate. In

the early eighteenth century the pottery trade was concentrated on a small area of Staffordshire by reason of certain natural advantages. Round the world-famous "five towns"—Burslem, Tunstall, Hanley, Stoke, and Longton—were adequate supplies of wood and coal, and clay of a suitable quality. Salt, and lead ore for glazing were also found in the neighbourhood.

English pottery changed little in character from the Norman Conquest to the eighteenth century. The industry was organised in a very primitive fashion. The clay was mixed and kneaded in a large open pan, and fashioned to the requisite shape by means of the potter's wheel. Then having been covered with a layer of powdered glazing material, it was left to bake in a rude kind of oven.

The pottery industry was not transformed by any series of epoch-making inventions as in the case of the textiles, but by gradual improvements in the process of manufacture. Unglazed earthenware is porous, and down to the middle of the eighteenth century the primitive methods of glazing in general vogue did not always produce water-tight vessels; for that reason the uses of English earthenware were limited. The practice of tea and coffee drinking, which developed in London after the Restoration, created a new demand for drinking vessels, which was supplied by Continental potters, whose methods of glazing were much superior to those in use in Staffordshire. The first improvements were effected by a Dutchman, John Dwight, who established a factory of stone ware at Fulham, outside London, in 1671, and made Cologne ware. It was said that he introduced into England, from Germany, the method of salt glazing.

Even in the latter part of the seventeenth century Staffordshire had become famous for the manufacture of butter pots, in which the butter of the north was conveyed to London; indeed, crates of Burslem ware were sold all over England. About 1690 there settled in Burslem two

brothers named Elers. They were of Dutch extraction, and had come over with William of Orange; probably they went to Burslem on the advice of Dwight, who was aware of the Burslem clay deposits. The Elers made wares of a new and finer quality, using metal dies for embossing, and they introduced the method of salt glazing into Staffordshire.

The Elers did not long preserve the monopoly of the new processes; two potters, Astbury and Twyford, feigning imbecility, gained employment in their factory, and discovered the secret of their delicate wares. Astbury's work was decidedly superior to that of the Elers, and he appears to have greatly stimulated the trade in tea-pots, and every historical event seems to have given birth to new designs. Well-known types of pottery were also created by Thomas Wheildon, who worked about 1740. He became famous for his beautiful tortoiseshell glaze, and for his pineapple, cauliflower, and melon ware upon which he used a fine green glaze. The zenith of Staffordshire pottery prior to Wedgwood was reached in the beautiful salt-glazed stone ware decorated on the glaze. The introduction of enamels was due to two painters from the Low Countries who practised near Burslem, and to them are due the beautiful Chinese scenes found on this ware.

During the first half of the eighteenth century the most important technical improvements were the use of calcined flint for whitening the glaze (introduced into Staffordshire by Astbury, though Dwight was using it in London in 1698); the introduction of Plaster of Paris moulds, and Booth's method of fluid lead glazing. Unfortunately, these improvements were made at a cost of terrible human suffering. Phthisis and other diseases of the chest became practically universal among the flat-pressers, jigger-turners, and mould-runners, through the use of calcined flint; and colic and paralysis, due to lead-glaze poisoning, cursed the Potteries well into the nineteenth century.

Improved and cheapened methods of production thus created the conditions for a wide market, but down to 1760 trade expansion was rendered difficult by wretched communications between Staffordshire and the outside world.

20. Josiah Wedgwood

The man who surmounted these difficulties and made the Potteries world-famous was Josiah Wedgwood. Born at Burslem in 1730, he was a potter by birth. Gilbert Wedgwood, his great, great grandfather was in business in Burslem in the seventeenth century. His great grandfather, grandfather, and father were also potters. Josiah, the youngest of the family, was apprenticed on the death of his father to his brother Thomas, and began work on the potter's wheel which shaped the clay. He was not destined to work long on the wheel for he contracted small-pox, as a result of which he lost his right leg. So far as pottery is concerned this was not a misfortune, for it took Wedgwood from the wheel and forced him into the study of the decorative art. Even before his apprenticeship was finished he began experimenting, and at the age of 21 went into business with Harrison of Stoke. In 1754 he went into partnership with Wheildon.

Some years later he started a factory of his own at Burslem and introduced the principle of specialisation into the pottery trade. In 1762 he introduced the famous Queen's ware, for which he received the title of Queen's Potter.

The necessity for having the ware decorated caused him to enter into business relations with Sadler and Green of Liverpool, who had invented a process of transfer printing. Wedgwood gave special attention to the possibilities of improved decoration, and discovered John Flaxman. Flaxman did some designs for a tea service, and afterwards became famous for delicate illustrations, all in the Grecian manner.

Wedgwood laid a ten miles' turnpike road through the Potteries, and helped with the construction of the Trent and Mersey Canal. When he died in 1795 he was not only the Queen's Potter, but one of the best friends that Staffordshire has ever had.

Between 1760 and 1840 machinery entered the pottery trade as in the case of textiles and engineering. Wedgwood used power for grinding his materials, and the pyrometer for measuring heat more exactly. The power lathe was also adapted for certain processes. These changes, however, were supplementary only to the skill of the potter. Skilled manual labour was not displaced as in so many industries, at least not before 1870.

21. Porcelain

English porcelain dates from 1744, when Heylin and Frye of Bow, East London, took out a patent for its manufacture. In 1775, William Dewsbury purchased the Bow factory and transferred all the plant and moulds to Derby, where be began the manufacture of the famous brown Derby ware.

Worcester porcelain was invented by Dr. John Wall, who, in conjunction with Davis, set up a factory and manufactured imitation Chinese ware. At this factory worked the famous engraver Thomas Hancock.

Hand-decoration was much too expensive for ordinary articles, and efforts were made to cheapen the process. The great names in this connection are Turner and the Spodes. Turner and the first Spode invented a method of blue printing, and Turner's Willow Pattern enjoyed great popularity at the end of the eighteenth century.

The first Spode, though the discovery is sometimes imputed to the second, introduced the use of calcined bones into English porcelain in 1794. He thus produced an entirely new china body which united the advantages of hard and soft porcelain, and made cheap china a

possibility. The second Spode introduced felspar into the composition of porcelain, making it one of the most translucent bodies yet made in England. The new composition was much harder than the bone porcelain.

22. Other Industries

Machinery made only very slow progress in the boot and shoe industry. Randolph patented a machine for riveting soles to uppers, and in 1810 Brunel invented a machine for making army and navy boots. Nails of different lengths for uniting the different parts of the shoe were used; nothing was sewn except the three pieces of which the uppers were composed, the vamp and the two quarters.

These machines fell out of use after Waterloo, and during the first half of the nineteenth century most machines invented were made in America. In 1850 there were boot and shoe factories in England, but they had neither machinery nor power. Between 1860 and 1870 attempts were made to introduce the Singer sewing-machine into the English boot trade, but with small success. In 1857 the closing machine for closing the uppers began to be widely adopted, and in the following year machines for stamping soles were brought over from America.

The impetus given to the export trade by the American Civil War led to the invention of the riveting machine by Crick of Leicester, and the use in England of Blake's sewer for attaching the soles to the uppers.

Down to about 1885 most of these machines were treadle-driven, little power was used except for sole cutting. Towards 1890 various labour-saving devices were imported from America—edge parers, ironing machines, and Goodyear's machine which turned out machine work similar in style to that of a hand-sewn, welted boot.

The clothing industry became a machine and factory industry only after 1850. The industry centred in Leeds, and hinged on the sewing-machine imported from America

about 1860. Power, first steam and later gas, was quickly adapted to the sewing-machine, and subsequently the hand knife for cutting the cloth, and machines for making button holes and sewing on buttons, were adopted.

In the wood working trades, little machinery and practically no power were employed before 1850. The circular saw was invented in 1790, but little use was made of it before 1825, when the planing machine came into use. As in the case of the boot and shoe industry, the true home of wood-working machinery was not England, but America. About 1854 wood screw-cutting machines were introduced from the States, and towards the end of the century numerous devices made their way from there to here, almost completely mechanising the joinery trade.

23. Conclusion

This outline of the transformation of England's staple industries from manual labour to power production places in very high light the slow and gradual nature of these changes. The great inventions on which attention has been specially concentrated, the work of Hargreaves, Arkwright, Crompton, Cartwright, and Watt, affected radically, only one of the two main divisions of one branch of the textile industry—cotton spinning—before 1800. Even in the cotton industry, where conditions of progress were specially favourable, primitive tools and methods of work lingered on to the middle of the nineteenth century. In 1850, the date often given for the completion of the Industrial Revolution, many important industries had suffered little change. From 1770-1860, the old methods persisted alongside the new, and were only very gradually superseded.

The problem of whether the working classes gained or not from the introduction of machinery is one that aroused a good deal of controversy during the nineteenth century. Cobbett and thinkers of his school whose ideal was a stable,

rural, self-sufficient society, saw no advantage to the labourer in the new order. Even Mill, in 1848, doubted if mechanical inventions had lightened the day's toil of any human being, and this belief was widely held.

Now it is true that machinery has created an intensified demand on human energy; it is also true that it has called into being many dangerous occupations. Until the State began to regulate the conditions of manufacture by means of factory and workshop Acts, industrial mortality was frightful. But on the other hand, machinery has relieved the labourer from an immense amount of drudgery, of health-destroying toil. Work in a modern factory may involve greater nerve strain, but it inflicts much less injury to the physical constitution than did the old hand-loom in an insanitary cottage. The carpenter no longer suffers from the jack-plane heart, neither is the agricultural labourer a decrepit old man at forty. When we pass on to purely economic considerations, the answer admits of little doubt. Machinery has cheapened the necessities of life, and brought leisure and comforts within the reach of all. Notwithstanding the cyclical depressions of trade, the worker, as consumer, has gained immensely from the mechanisation of industry.

His gain as producer has not been without loss, for machinery, involving as it does, a high degree of specialisation of labour, has created those industrial fluctuations and periods of unemployment so marked since 1800. It is, of course, true that machinery does not always create a demand for labour. It can do so only where the demand for a cheapened product is highly elastic, and when the other factors that make for the smooth working of industry are not disorganised, as they are at the present time (1933). Machinery can increase the demand for labour in two ways. By cheapening the cost of production of the products of the industry in which it is introduced it can create an intensified demand for labour, as was the case in some

branches of the cotton trade during the early stages of the Industrial Revolution. Secondly, where the demand for the products of the industry is not greatly increased, machinery liberates capital and labour for application to other or to new industries. New industries, as a general rule, are not likely to arise, or old ones to expand, unless surplus labour and surplus capital are present.

But a clear distinction must be made between the immediate and the ultimate effects. The immediate effects, especially if the machinery is introduced on too large a scale, or too quickly, may be a reduction in the demand for labour, as was the case with the weavers in the early years of the last century. On the other hand, that the ultimate effect is to increase the demand for labour seems confirmed by the history of the nineteenth century. This statement, however, needs qualification. Absolute judgments can seldom be made in Economics. Machinery undoubtedly increased the demand for labour progressively after the first quarter of the nineteenth century, but it does not follow that such will be the case in all times, and in all circumstances. World conditions to-day differ widely from those of the Industrial Revolution, but to pursue this matter further would transcend the scope of this chapter.

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CHAPTER IV

COMMUNICATIONS

1. Complexity after the Industrial Revolution

Until the Industrial Revolution English social life developed in two or three parallel lines, and it is comparatively simple to reconstruct the position at any time. After about 1760, however, society became complex, and many factors interacted with each other. Industry did not progress bodily, but different types developed at different speeds in different periods. Again, an epoch-making invention or happening worked its greatest effect only within narrow limits.

Thus it is necessary to examine singly the various threads and work them together into a whole as far as possible. Still less than in former times can we mark periods definitely, like so many geological strata. Two cleavages must be made, one between the different spheres of activity, and the other (according to time) within each sphere. Complexity is increased in that every industry as it develops affects and is affected by every other, so inextricably that separation of cause and effect is impossible.

Thus improved communication made possible the carriage of raw materials and finished products, and the increased production resulting stimulated further improvements in transit. For convenience an attempt at separation must be made, and the development, as before, will be carried up to the present time.

2. Roads

The earliest roads were mere developments of paths, and were formed generally by accident, by continued usage by man or animals. A path once formed would tend to remain, through inertia, whatever its slight defects. The winding

streets in a country town are a continuation of the old lanes, themselves formed from paths. Those paths which were most useful would tend to become more important, and larger inconveniences would vanish. Hence roads would grow naturally where required, especially as the land question was not acute.

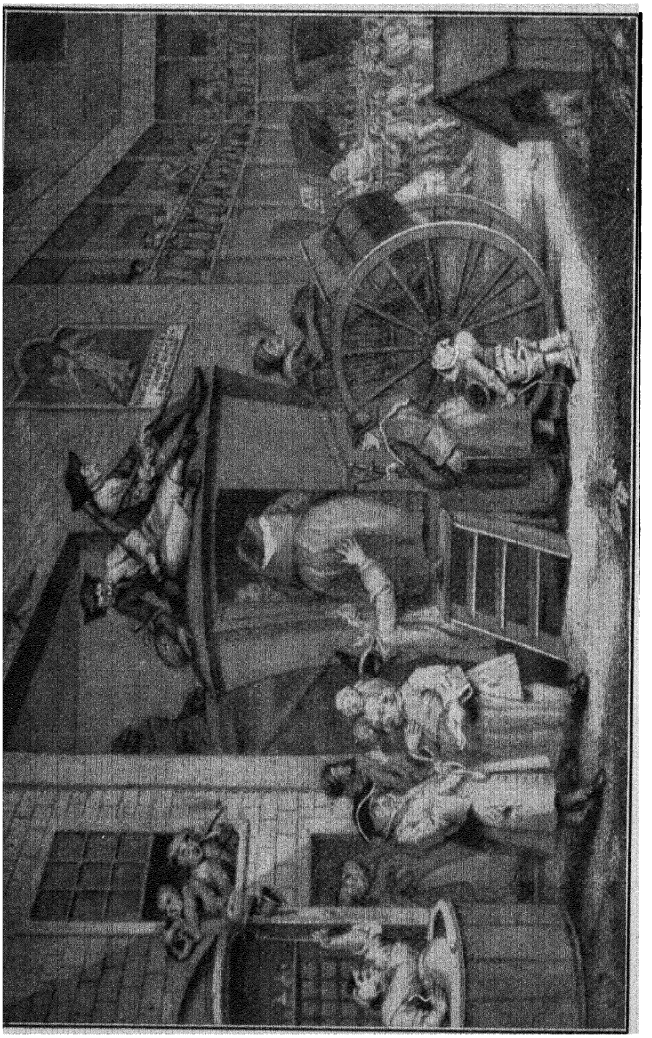
The opposite plan was pursued by the Romans. They built roads largely for military purposes, and the chief towns only were considered. The ends of the roads were fixed, and the lines of communication made as short as possible. Hills and valleys were not considered, however easily they might be avoided. This was the less important, as the Romans did not use the roads for wheeled vehicles. They fell largely into disuse later, when "convenient" highways again became the rule. In the thirteenth and fourteenth centuries communication probably improved, and the Roman roads were again used, as they are to-day. After that they become worse and worse; Arthur Young gives a bad account of them. Earlier in the eighteenth century each parish had maintained the main roads falling within it, with obvious results; when turnpike trusts and tolls were instituted, matters were not immediately improved. The pressing need for better roads called forth the required ability.

(1) METCALF. Metcalf ("Blind Jack of Knaresborough") had an amazing record. In spite of his infirmity, his enormous energy and ability carried him to achievements which few men could rival. He knew every part of the Pennines thoroughly, especially as regards the slope of the ground and the nature of the underlying soil. In 1765 he offered to construct a short road near Harrogate, and he did it with unheard-of quickness; next he built a bridge at Boroughbridge. From this easy country he turned his attention to communication on the Lancashire and Yorkshire borders.

Two different industries were growing up in these two counties, and hence communication was essential; Metcalf made industrial growth possible. Unlike the Roman road-makers, he paid all possible attention to gradient, and his success is all the more remarkable in such country. He used the main valleys, bending away from them when a tributary valley was crossed; the winding nature of his roads is proverbial. The Aire gap had always been a means of communication, as had been the Calder gap to Blackburn or Manchester in a less degree; but he wished to make a highway over a more southerly region, and hence made his wonderful road from Huddersfield to Manchester through cuttings of hard sandstone and over a mountain-bog formerly supposed to be impassable. He is to be remembered as the pioneer who showed the importance of gradient, and also for his process of construction over soft country.

(2) TELFORD. Metcalf did not produce a good surface. This was the work of the great Telford (1757-1834), whose work was again improved by McAdam. Telford was born in Dumfriesshire. In 1793 he was made engineer of the Ellesmere Canal, constructing two great aqueducts. In 1801 plans were made for the construction of a new iron London Bridge, which for other reasons proceeded no further. In 1803 he was made engineer of the Caledonian Canal. At the same time he was commissioned by the Government to open out the Northern Counties (Scotland), then in a poverty-stricken condition, by roads and bridges. In eighteen years over a hundred bridges and nearly a thousand roads were constructed.

He was employed on canals in England and Sweden, and made or extended the more important harbours on the East Coast of Scotland. In 1814 he made the Carlisle-Glasgow road, and then the great Holyhead road, largely through very difficult country. The increasing number of



A COUNTRY INN YARD WITH A TYPICAL COACH OF THE SEVENTEENTH AND EIGHTEENTH CENTURIES.

Irish travellers intensified the crossing difficulty at the Menai Straits, and from 1819 to 1825 he was building the great Suspension Bridge. His last work was to link up the canals in the north-east Midlands to fight the threatened railway competition.

Just previously he had been improving the Great North Road, among others; and all this time the mail coach system had gradually improved. Telford with his fine roads evolved plans which would have brought the system practically to perfection, but though they would have been carried out, the railway appeared, and they were put aside. His work was increased in importance by the abolition of turnpikes in London in 1827, followed by their gradual disappearance in the country. To Telford's time belongs the use of iron for stone in bridge-building, with the consequent increase of efficiency.

Like McAdam he laid down certain principles, the first being efficient drainage of the road subsoil. A wet subsoil both increased wear and tear of the foundations and depreciated the quality of the surface. Telford also, unlike Metcalf, worked scientifically and in a less "practical" and haphazard fashion. He saw that the road materials must be carefully selected and prepared for use; Metcalf's roads tended to be too soft and sandy, wearing into ruts, because he relied on local material. Again, later roadmakers required a cross section neither too flat nor too convex; in the first case water would remain, in the second traffic would keep in the centre and wear deep ruts. In hilly country they relied on longitudinal slope (*i.e.* along the length of the road) to keep the surface dry, the road being made of circular section.

These principles were all originated by Telford and followed by McAdam; Telford's speciality was that he made a firm foundation, as the Romans did with their flagged roads. He took stones, laid them down lengthways, and packed them as close as possible, with the

broader end downwards. This gave stability and a firm foundation, improved by the packing of the spaces between the stones. All the care and expense was lavished on the foundation, and the surface was looked on as a mere covering. The net result was that a permanent, thoroughly sound and reliable road was made which had a variable surface, and which was extremely expensive. The system was particularly suited to the great trunk roads.

(3) McADAM. McAdam (1756-1836), born at Ayr, was Telford's great rival. His work was brilliant rather than lasting, and his genius lay rather in repair than in solid construction. His root idea, so well known as to have given his name to a process, was that an excessively firm foundation was unnecessary; more, that a soft subsoil was positively beneficial in that it allowed the road to accommodate itself to the traffic, while too great rigidity might ruin the surface. Hence his remark that the nature of the subsoil was of little consequence, but that he would even prefer a soft basis.

He constructed roads over bogs without foundation, his only condition being that the ground should be firm enough to bear a man's weight. He contended that then the softest subsoil would carry the greatest weight if there was thorough drainage, and if the road surface itself was impervious to water. Holding these principles, he could sacrifice all to surface. His advance on Telford was that he showed that a chance binding like chalk was actually harmful in frosty or wet weather.

His experiments showed him that cubical blocks of stone, if small and of equal size, would bind themselves together under pressure of the traffic, which thus would improve the surface till complete packing had occurred. A binding prevented the packing. This interlocking did actually take place, and McAdam undoubtedly obtained a better surface than Telford at less cost. For a time his ideas were

paramount, and expensive Telford-made roads were "macadamised"; later ideas favoured Telford, and a firm foundation is now laid for all permanent important new roads.

McAdam systematised previous principles. He saw that directness must be often sacrificed for the sake of convenience, and he introduced the idea, on all main roads, of a "ruling gradient," which should not be ordinarily exceeded. To-day this is taken as about 1 in 30, and is such that the work done in pulling a load is about double that on the level. He paid great attention to the exact degree of convexity.

(4) LATER PROGRESS. Progress since McAdam has been mainly in the direction of development, especially as the need for roads declined relatively after the introduction of railways. Yet there are signs of a revival, when a new stock-taking of processes must occur.

In 1839 wood paving was introduced. This gives a comfortable surface and is nearly noiseless. Hence it is suitable for towns. Asphalt, introduced in 1869, is still more silent and more enduring, and will always have a certain vogue. To-day the chief problem is that of dust, a result of the new quick, heavy traffic. The best palliative is the spraying of tar on the dry surface, but as the dust originates in the road materials, an improved choice of material has worked beneficial results. A bituminous binding of the surface stones would also retard abrasion.

3. Canals

Canals were hardly second in importance to roads at the Revolution. In the earliest times it was held comparatively easy to cross the North Sea, while difficulties on land were greater unless inland waterways were used. The importance of water transport persisted. Where inland waterways were connected with the sea, expense and

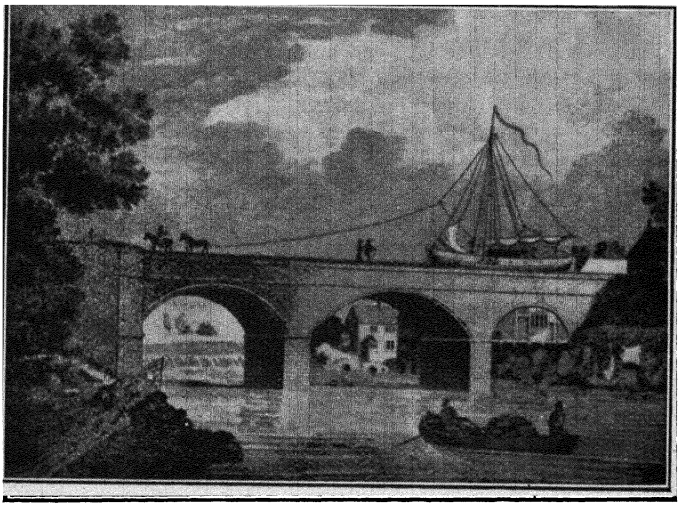
trouble of disembarking were unnecessary. Canals, once constructed, needed little repair, and working expenses were small. The resistance of the water is low, even for great loads, while the cost rises little when trade is much extended.

Later they had the further advantages over railways that no expensive plant or power was needed, while goods could be delivered at any point. The great drawback was the low speed. Hence for goods which are non-perishable, *e.g.* coal, they are still useful means of communication. A hundred years ago their importance was immense, and in 1850 no place south of Durham County was more than fifteen miles from navigable water.

(1) BRINDLEY. Brindley (1716-1772) was the great pioneer. Born in Derbyshire, he possessed great natural mechanical skill, though utterly without education. In many ways a failure, he gradually showed his peculiar skill to his employers. The Duke of Bridgwater in 1755 wished to take coal from his mines at Worsley in Lancashire to Manchester, and road traffic was too expensive. Hence he determined to remove the coal by river, but Brindley advised him to construct a canal. The latter made one, showing great originality in construction, and sparing no trouble in cutting, tunnelling, and embanking. He carried it, by the first important English aqueduct, over the Irwell. This was the first canal of the new type in the country, and a mania of construction followed, Brindley, and later Telford, throwing their energy and skill into construction and organisation. Telford, in his Ellesmere Canal, made two of the most wonderful aqueducts England has seen, one at Chirk and the other over the Dee. There were no other great names, but the work steadily progressed.

(2) SHIP CANALS. Ship canals are merely extensions of the sea (in a commercial sense). The only one in Ireland is the Newry Canal, made in 1761-1769. The Caledonian

Canal has been mentioned. The Gloucester-Berkeley Canal was begun after the Act of 1793. Telford revised the plans and completed it in 1827. The Exeter Canal, the first English ship canal, had to be deepened by Telford, and is now too shallow for big ships.



THE BRIDGEWATER CANAL PASSING OVER THE RIVER IRWELL.
From Aiken's *Description of the Country from* 30 *to* 40 *miles round Manchester*, 1795.

The Manchester Ship Canal is far more important. The idea was broached in 1825 by Chapman, and in 1840 by Palmer; it was made between 1887 and 1894. In 1883 the scheme was rejected by the Lords and in 1884 by the Commons, bitter opposition coming from Liverpool and the railways affected. The Bill was passed with great difficulty. The canal was made by Sir E. Leader Williams; he preferred still water to a long tidal cut, so that locks were necessary. It began in the Mersey estuary and

continued on the Cheshire side as far as Runcorn; from this point was made a level canal (tidal) to the first lock near Warrington, beyond which was fresh water to Manchester. Thus the only obstacle to big ships was the lock, less troublesome than a tidal river. The canal had to cross Brindley's canal, and this was done under the first English swing aqueduct, which could be moved aside when tall sailing ships wished to pass. The canal has made Manchester practically into a seaport. Trade has increased enormously, and Liverpool has been affected.

Ship canals repay their cost because working expenses increase so slowly with increase of traffic. They are chiefly used for foreign commerce. Manchester, for example, requires its raw materials from the west.

(3) HISTORY OF CANALS. Inland canals are developed roads, like the Venetian waterways, suitable for internal communication. The first Waterway Act was passed in 1423, when the Thames was deepened; and that river has received attention since, though the upper reaches have now little importance. In 1783 development was continued westwards as the Thames-Severn Canal, through a river-gap in the Cotswolds. In 1842 was instituted the Severn Commission, which deepened that river and canalised the swifter portions in its middle course. Brindley's greatest work was the still important Grand Trunk Canal between the Trent and the Mersey. Liverpool, Hull, Bristol, and London were all joined, and London was connected with the Midlands through gaps in the Chiltern Hills.

Brindley, with his Roman road policy, was an expensive example to follow, and English canals are usually circuitous, following every bend of the valley and avoiding the smallest hills. Canals thus are suited to a flat country, the more thickly populated the better. Yet we must notice the astounding fact that the most useful canals,

both of the early nineteenth century and of to-day, are those crossing England from east to west, taking in the unpeopled Pennine mountains in their course. The various canals here form a simple system.

In 1698 the Act for the Aire and Calder Navigation was passed. The canal when made went from Goole to Leeds, there joining the Leeds and Liverpool Canal; another branch went to Wakefield, thence continuing to Rochdale and Manchester.

Locks are very common, especially in the central parts—ten or twenty miles are traversed where no towns appear. Expensive reservoirs high up on the hills had to be built to supply the necessary water on both sides, and on two branches tunnels had to be cut, one of them, the Stanedge tunnel between Huddersfield and Oldham, being three miles long. Progress takes place in the tunnels by legging; that is, a person seated in the barge pushes against the walls. The difficulty of construction may be imagined, and the canals could not have been made but for the river gaps (Aire, Calder, and Colne) already mentioned. Even as it is, one canal reaches a height of nearly a thousand feet.

(4) THE PENNINE CANAL SYSTEM. The excessive importance during last century of the system, with the accompanying roads and railways, necessitates a further description. Ships brought, for example, Baltic goods from Copenhagen to Goole. "Trains" of barges, consisting of a large number of these pulled by a steam tug, brought the goods to Castleford; some barges followed the Aire to Leeds, where most of the goods were stopped, while a few continued by the next canal, which also carried Leeds goods, to Blackburn and Liverpool. Other barges, generally towed by horses or pulled by men proceeded by the Calder near Halifax and over the Calder gap to Manchester; while a branch canal, less used,

passes up Colne valley, which connects Huddersfield with the Cheshire and Lancashire manufacturing districts.

The necessity of these canals in the time of the industrial revolution is apparent. The roads over the hills were (in the south) high and unsafe, unsuitable for much traffic, and yet they were always used, except when blocked by snow. Lancashire produced cotton and had Liverpool as a port; Yorkshire wove wool and possessed Hull. Each county, with its increasing population, required two ports, both for import and export, and trade between the two counties was essential; yet no low pass existed till South Derbyshire was reached.

The population of Yorkshire took off the supply of Lancashire cotton, raising its price, thus improving the position of the cotton industry, while Yorkshire similarly benefited by the proximity of Lancashire. Hence the rapid concentration of population in South-West Yorkshire and in South Lancashire, on the coalfields, necessitated communication between these counties. Road transit was very difficult; canals had to be made at whatever cost. Even to-day, in these times of canal sluggishness, these waterways are still used to some extent.

(5) IRELAND AND SCOTLAND. To complete the communication traffic can pass on to Liverpool, and thence across the sea to Dublin. Here begins the largest single system of internal waterways in the British Isles. The Grand Canal was commenced in 1753. It proceeds westwards to Ballinasloe across the Shannon, while another branch follows the Barrow southward to the south coast. Though competing with railways it is prosperous, and makes a fair profit.

The Royal Canal follows the Midland Great Western Railway by Mullingar to the Shannon, and is little used.

Ireland is very suitable for canal construction. The land is flat and there is plenty of water, so much so that

construction has sometimes been undertaken mainly with a view of reclaiming bogs.

In Scotland there is a narrow belt of plain, two or three miles wide, running from sea to sea, just where the country is narrowest and most thickly populated. A ship canal would be of immense use, but the Forth and Clyde canal is navigable only by barges. In 1802 the first steam barges were used here, and they have been introduced elsewhere. They are not economical for small loads or where there are many locks.

(6) ADVANTAGES AND DRAWBACKS. The economic gains that accrued to England from the development of her canal system are self-evident. By reducing the cost of carriage to one quarter, the inland distribution of coal was economically possible, and factories and blast furnaces could open out on convenient sites. Heavy building materials could be moved for the first time with facility, thus allowing the growth of new towns. South Lancashire and North Staffordshire were brought into easy communication with Liverpool; and Birmingham and the Midlands with the Thames Valley. In 25 years, according to Professor Knowles, the population of the Potteries increased 300 per cent. after Staffordshire had established water communications with Cornwall; and with the driving of the pack horse from the roads the era of the commercial traveller began.

But if the canals made a definite contribution to the economic prosperity of England, they were constructed with little or no foresight into the needs of future expansion. Constructed by hundreds of private companies, there was uniformity neither in gauge nor depth. The length and width of the locks varied enormously; so did the size of tunnels, and the height of bridges; hence, only the smallest barges could pass with facility from one system to another. Another serious drawback was that no system of through

rates was established until the present century. Down to 1845, the canal companies were not carriers, any one was free to use the water so long as he paid the necessary tolls; hence charges varied with individual caprice. Almost as quickly as the canals were constructed, factories sprang up round the basins, and towing paths, through the industrial towns. It was therefore impossible, economically at any rate, to widen the system so as to allow of the introduction of steam-propelled barges.

(7) LATER DIFFICULTIES. The system suffered a sudden and serious reverse on the invention of railways, and about 1845 transfer began. Sometimes the railways offered tempting terms to owners, who in other cases were driven by fear to sell at any price possible. The motive power on the part of the railways was the prospect of monopoly; when the canals were obtained, they were suffered to fall into disuse. In Ireland, a comparison between the independent Royal Canal (owned by a railway) and the private Grand Canal, is instructive.

In any case the railways did not attempt to utilise canals to the full as a private company would have done. They were gradually allowed to fill up with weeds, and were insufficiently dredged. As traffic grew, the barges had to remain constant in size, as most of the waterways and locks were impossible to widen.

There was no system of through communication such as that which developed on the railways, where also small lines tended to be bought up. Where such could occur, links were often held by railways, and they would permit no such facilities. It was a short-sighted policy, as the canals could have acted as feeders, but the trading public were also caught by the glamour of the railways. Thus canals sank in importance, and the effect has lasted up to the present day, though public attention has been called to the matter. Ireland especially has lost much.

4. Railways

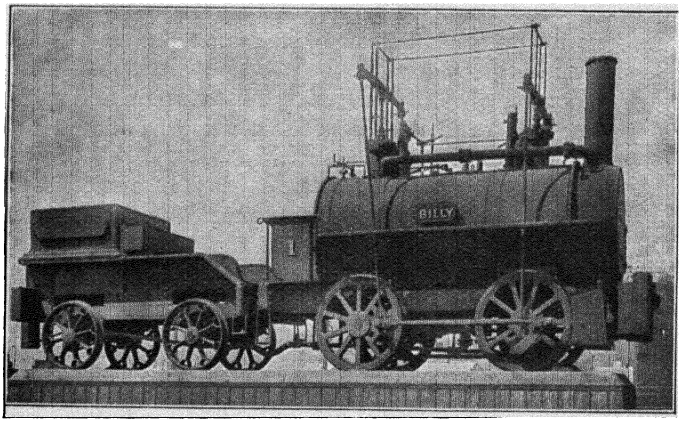
The canals had done their work in making possible the Revolution; the roads were hardly perfected. Both were now largely superseded by railways. These have the advantage over canals of speed, and of cheapness (for long distances) over road transport. Once the line is in existence, a large increase in traffic can take place at a less than proportionate increase of cost; the speed itself reduces secondary expenses. A large part of the cost of road traffic is incurred in necessary charges on the way. The canals were neglected and bought up, and the roads lost their importance. The change was most marked in respect of goods; passenger traffic had always been almost an advertisement. The motive power behind the change was the attempt to do away with the expense of horse-power and replace it by a reliable natural agent.

Little progress could occur until the invention of the steam-engine, and even then the difficulties of its application to locomotives had to be overcome. Railways were introduced gradually and experimentally, at first in places where bulky goods (especially coal) were to be transported, and where construction was easy. Only gradually did the expensive lines come into being. The lines were, as in the case of canals, most needed in the north, where communication is naturally difficult; the first English railways were those which tapped industrial districts on each side of the Pennines. Later the hills were tunnelled, and communication from sea to sea, between Liverpool and Hull, was made easy. These railways fixed the present conditions of industry; Lancashire and the West Riding obtained a start which they have not lost.

The system was at first looked on as an extension of the canals. Tolls were payable on the canal basis; the original idea was that any person could use the railway on making a payment. Passengers insisted on being carried, and arrangements were made for them, but for long they were

treated with some disdain. The attraction in their case was the combined speed and cheapness of the trains compared with the coaches.

(1) THE DEVELOPMENT OF RAILWAYS. Railways are not modern. For long the superiority of wheeled traffic was known, though the straightness of the Roman roads, in spite of obstacles, shows that it was of little importance



"PUFFING BILLY," THE FIRST LOCOMOTIVE DRIVEN ON A SMOOTH RAIL (1815).

in early times. In the middle of the sixteenth century a "wagon-way" existed which carried coal from Newcastle to the Tyne. In 1767, at Coalbrookdale, iron rails were substituted for wood, and the use of wagon roads became fairly general near mines and quarries. The motive power was that of horses. The first steam locomotive was used at Merthyr Tydfil by Trevithick in 1804. It was not a practical success, being too expensive, but it was a start. Blenkinsop, in 1811, used the cogged-wheel system near Leeds. Hadley, in 1813, first used the famous "Puffing

Billy" at the mines of Wylam, near Newcastle, and it had a long life. In 1814 Stephenson built his first engine (Blucher).

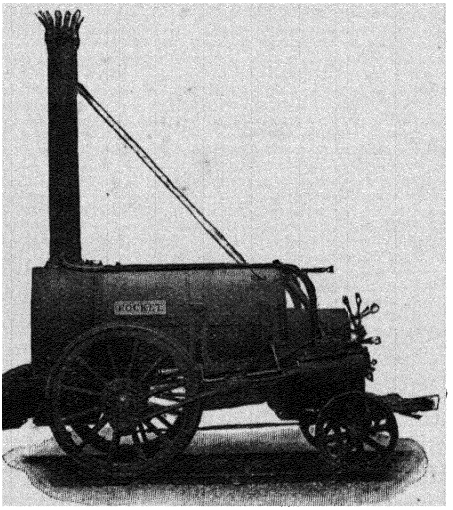
The Stockton and Darlington Railway was authorised in 1821, after a great opposition, and was begun in 1825, Stephenson being the engineer. After its completion the price of coals at Darlington dropped from 18s. to 8s. a ton. This fact tells us, more than pages of description, what was the economic effect of railways. When the Liverpool and Manchester Railway was authorised, it was at first proposed to use fixed engines (as in many collieries to-day), but Stephenson opposed and defeated the project. This led to the famous prize competition for locomotives.

The success of these initial lines led first to extended construction, generally useful, and then to wild speculation and feverish progress, culminating in the railway mania of 1840-1850. The great financial crisis of 1847 was largely the result of this. Since then progress has been relatively slow. In 1850 there were 6,600 miles of line, in 1860 10,000 miles, and in 1870 15,000 miles; after that, construction slackened. In 1842 the Regulation of Railways Act, followed by the extension of Board of Trade control in 1889, has put construction and supervision into the hands of the public, through Parliament.

In Scotland the Monklands Railway was built in 1826. Irish construction developed later. The Dublin and Kingstown Railway was built in 1834, but for long it was alone in the country.

(2) GEORGE STEPHENSON. George Stephenson (1781-1848) was born at Wylam. His early work lay in coal-mining, and he invented a safety lamp, used with success in 1815, at the same time as Davy, though independently of him. He was the first to apply the principle of the steam blast to locomotives (1819) at Hetton colliery. In the rivalry between the fixed and movable engine systems,

he preferred the latter. He saw that special railroads must be constructed, not because he foresaw later developments, but because the gradient had to be lessened. He saw that the expenses increased enormously as the gradient increased, and that initial expense, though very great, would probably be amply repaid in the saving effected. He gave up the old cast-iron rails and used wrought iron instead. His real success was the opening of the Liverpool and Manchester Railway in 1830. He had won the



STEPHENSON'S "ROCKET."

directors' prize with his Rocket (1829), and his engine had only one serious rival, which broke down. Stephenson then showed his surveying skill first by the conquest of Chat Moss and later by his other lines, the more important of which he supervised.

What Stephenson did for the railways in the north, Brunel, the engineer to the Great Western Railway,

accomplished for the south. Brunel, with an eye to fast passenger traffic, constructed the Great Western on broad gauge principle. The battle for the gauge was one of the most important events in early railway history. The northern railways used the 4 ft. 8½ in. gauge, so that when the Midland and Great Western lines met at Gloucester Parliament was forced to intervene, and after a long struggle the narrow gauge was made the English standard.

Other famous early railway engineers were Sir William Cubbitt, who built the Great Northern Line from London to Peterborough, and the South Eastern Railway from London to Folkestone, and Sir John Hawkshaw, designer of some of London's first railway stations.

(3) LIGHT RAILWAYS. It was tempting in many cases to use the main roads for steam locomotives. Lombardy, later, possessed a great system of such road railways, which have survived, and they existed in some measure in the flatter and more populous districts of Britain; they still occur in Dublin and other places. These developed into tramways, or the latter were independently constructed, as many districts wished to bring to market that agricultural produce which could not bear the expense of an ordinary line. In 1896 the Light Railways Act was passed. Since then many of these lines, resembling the colliery wagon roads, were scattered over the country.

Railways not only, as in the north, aided existing progress: they often had an independent effect on national growth. Great railway towns like Crewe and Swindon grew up, of a kind hitherto unknown in the world's history. Many unimportant places suddenly developed, while others which were untouched by the main lines, whether by the selfish opposition of influential inhabitants, by their stupid prejudice, or by the lack of geographical advantages, lost their importance. Wakefield has bitterly repented its action in refusing to admit the main lines. Stamford is

no longer on the Great North Route; Peterborough has taken its place. Carlisle still focuses the Scotch traffic, while Birmingham, with its central position for all parts of England, has enormously developed. The same causes which made Stirling a strategic point has made it a railway centre. The packet-stations, such as Dover, acquired a new importance after the railways became such efficient feeders.

(4) ECONOMIC EFFECTS. The economic effects of the introduction of railways was as great as that of power machinery in factories. The cost of transport was reduced, and commodities were cheapened. Business was speeded up. Transport by canal was undoubtedly cheaper and easier than by road, but it was still relatively slow compared with the railway. Again, the railway could be taken to places impossible to reach by canal; hence its consequences were far more wide-spread and fundamental. Railways, by creating a mobility of goods and persons on a scale hitherto unimagined, greatly intensified the forces of competition. Manufacturers were severely tested, and the weeding out of unsuitable employers was quickened; on the other hand, the position of those already in a strong position was strengthened. Commodities, too, changed in relative importance. The development of railways overseas allowed England to draw her food supplies from regions hitherto inaccessible, and in conjunction with the steamship to substitute bulky goods, such as machinery and coal, for spices and other goods formerly the basic articles of foreign commerce.

Even the immediate effects on the coal and iron industries was immense. Railways created an enormous demand for coal and iron, and subsequently, steel rails; for plates, castings, and forgings for locomotives, as well as for rolling stock.

Cheap, rapid, and certain transport reacted on industry

in various ways. It was no longer necessary as in earlier times for traders to provide against the uncertainties of renewal of supplies by keeping large stocks on hand. This, in turn, allowed traders to work on smaller capital, a vital economy.

Railways made possible a national, instead of a mere local market, and in consequence, a larger business unit. Cheap and rapid transport allowed the modern retail shop to supersede the old-time fair, and removed a natural limitation imposed on the size of a factory by the former difficulty of obtaining raw materials and fuel.

To some extent, railways changed the character of business. The intensified competition, which was the first effect, gradually gave place to agreements and combinations to restrict output and control prices on the part of producers. After 1840 railways themselves found it necessary to amalgamate into larger units, an example which was followed by industry in general.

Socially, also, the effects of railways was very great. A new class of transport workers was called into being, a class of workers with a keen sense of solidarity which later exercised militant influence on the trades union movement. Railways assisted the urbanisation of England quite as much as the factory and power machinery, and after 1870, when corn growing was no longer profitable, except in certain districts, they made possible the development of dairy farming and market gardening. The suburban extension of the large industrial towns would have been impossible without railways, and they also created the conditions necessary for the modern store and multiple shop, as well as the health resorts which now fringe our coasts.

(5) Later Progress. Later progress, on the whole, has consisted in mere development. In 1889, the block system of working was introduced, with interlocking points and

automatic brakes. Attempts have been made to ensure safety, but accidents, mainly now dependent on the human factor, are still too common. The best passenger trains are hardly capable of improvement, and the main goods services are reliable and efficient.

(6) CHIEF FEATURES OF ENGLISH RAILWAYS. Several peculiarities of the British railway system, differentiating it from the American and Continental lines, should be noticed. The English railways were constructed with the same lack of system that marked the cutting of the roads and canals, and the opposition to their construction, coupled with the fact that private enterprise received no State support, resulted in a cost per mile of track that is still reflected in rates and charges, and has raised no end of problems since 1900. Another disability under which the English railways have naturally suffered, compared with foreign systems, is that most of our hauls are short, and short hauls are relatively very expensive per mile. A further peculiarity of the English railways is that, like the canals, they were intended originally as special communication ways only, that is, a new form of public highway. It is true that circumstances forced the companies to become carriers as well as toll-takers, but even to-day nearly one-half of the goods wagons on the lines are privately owned. The waste of time and money caused by the constant shunting, sorting out, and return of these empty wagons to their particular destinations must be enormous.

(7) AMALGAMATION AND STATE CONTROL. Down to 1840 railways were in the experimental stage. By 1844 success was assured, and the movement towards consolidation began. The movement to consolidation was first begun by George Hudson, the "Railway King," but the Railway Clearing House, established in 1842 to adjust payments to owners of sectional lines, exercised powerful influence.

Another, and less significant cause, was the practical questions of convenience and economy. The uncertainty and delays caused by the transit of passengers and goods over sections of lines having independent control was a serious inconvenience to the public; on the other hand, the railway companies themselves were not insensible to the advantages accruing from unified control. The resultant of these forces was that between 1844 and 1847 the English railways were transformed from a large number of small disconnected lines into a small number of main lines, the framework of the present system.

Hudson effected two great amalgamations, the North Eastern and the Midland Railway systems. In 1846 the London and North Western Railway was formed, and this was followed by the Lancashire and Yorkshire, 1847, the Great Northern (London to Doncaster), 1850, and the Great Eastern in 1862. In 1844 there were 200 small railway companies in Great Britain; in 1850 these had been consolidated into 22 main, and a few small lines. By 1860 the railway system was practically completed. Through railway lines had been constructed between London and Glasgow and Edinburgh, and the North Western and Great Western railways had linked up Wales and the South-West to the Metropolis.

The English Railway system was laid down at a time when the *laissez-faire* movement was under full weigh; in spite of this, however, Parliament began to find it necessary to exercise some measure of control. As early as 1842 it was enacted that no new line should be cut without the sanction of the Board of Trade; and by the Act of 1844 (Gladstone's Act), Parliament reserved the right to purchase all future railways at discretion, and to revise fares and freight charges where a line was earning a dividend of more than 10 per cent. The *laissez-faire* principle was too strong for any advantage to be taken of this Act, but a parliamentary train, that is, one train per day stopping at

every station and conveying third class passengers at a rate of 1d. per mile, was established.

Public and Parliamentary interest in the railway question is evident from the fact that between 1844 and 1872 Railway Commissions sat almost continuously, and in 1872 the memorable pronouncement was made that experience had proved that competition could not achieve for railways what it had done for industry in general. This marks a definite breach with the *laissez-faire* principle.

Between 1873 and 1893 the principle of State control of railways took firm root. The increasing competition from America and Europe to which England became subject after 1870 appeared to warrant some revision of the *laissez-faire* doctrine. Accordingly, in 1873, the Railway and Canal Commission was appointed with limited, but yet real powers of control. Its main functions were to arbitrate, in cases of dispute, between rival companies; to decide whether rates were reasonable; and to examine and control future proposals for amalgamation.

Under the Railway and Canal Traffic Acts of 1888 and 1893 maximum rates were fixed by the State. Each railway company was bound by statute to submit to the Board of Trade a schedule of maximum charges for every class of goods. Objections against these charges could be lodged by the trades concerned, and if a settlement proved impossible, Parliament could intervene. All railway rates were made open to public inspection, and future changes had to be publicly advertised.

Viewed in the light of post-war thought, these Acts present no startling features. At the time, however, they appeared a decided innovation, a definite breach with principles under which England had acquired industrial and commercial supremacy. But the rise of partial monopolies in the case of public utilities had made State intereference inevitable; indeed, from this time onwards, competition between companies with respect to charges

practically disappeared; future competition was restricted to facilities for enticing traffic. Between the passing of the Traffic Acts of 1888 and 1893 and the outbreak of the European War, railway problems centre round the working conditions of employees and Nationalisation. These two questions are not entirely independent, for railway workers suffered notoriously from long hours and low wages, and it was widely believed that concessions could be wrung more easily from the State than from the companies. In 1893 the Board of Trade was empowered to fix railway hours where they were unreasonably long; and in 1893 a general demand came from the unions for an eight hours' day, but without success. The militant spirit, checked temporarily by the Taff Vale Judgment, revived with the passing of the Trades' Disputes Act of 1906, and in the following year, the companies, while refusing to recognise the Unions, were compelled to accept the institution of Railway Conciliation Boards. Dissatisfaction with the inadequacy, from the men's point of view, of the new arrangement, coupled with dismissals and other economies resulting from new working agreements between the companies, led to the strike of 1911. The men's unions gained recognition, and the Conciliation Boards were revised with the object of allowing public opinion to influence both wages and conditions of employment.

During these years the question of railway nationalisation, like that of the mines, was a very vexed one. On the side of nationalisation it was urged that the State could work the railways more economically, more efficiently, and to the social advantage of the community as a whole. Even should the economics fall short of anticipation, any financial loss, it was argued, would be more than compensated by the extension of facilities to industry. On the other hand, it was argued that the difficulty of borrowing the necessary capital was a stumbling block (this was before the day of the war loans); that the present railway

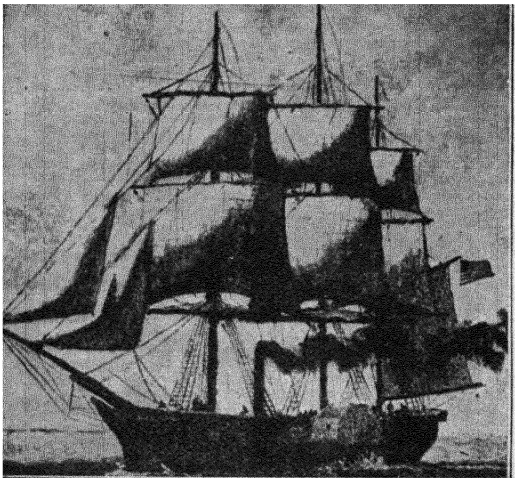
revenue would be lost for taxation; that the country would be torn between the conflicting claims of the railway servants and the trading and travelling public; and that corruption would creep in, etc. The problem is still unsolved. Comparison with Continental railways shows that fares are high, and the question is not to be solved by mere considerations of ownership. The root trouble is that immense capital was required at first to buy the land required, and this charge has remained as an obstacle ever since. As the railways were not to be State-owned, land could not be bought cheaply. The system which has been pursued in this country is that of private construction, though Parliament decides whether a line shall be made.

5. Steamships

Just as sea traffic was carried on before roads were invented, so the beginnings of steamships preceded those of railways. A power was again required which could be controlled; secondary advantages, as speed, were later obtained. In 1786 Symington patented a marine engine, and in 1803 he launched the first steam-boat on the Forth and Clyde Canal, the *Charlotte Dundas*. This was successful, but washed away the canal banks. In 1812 Henry Bell sailed the *Comet* down the Forth and Clyde Canal and along the coast to Leith. This venture paved the way for river and cross-channel services, and by 1818 steam-boat services had been established between Liverpool and Glasgow, across the Irish Sea, and between Dover and Calais.

While the marine engine was passing through the experimental stage, pioneers were constructing the iron ship. It was Cort's method of rolling wrought iron into plates and girders that made the project practicable. The first iron steamboat was built by Manly of Tipton and tried on the Thames in 1823. Three years later John Laird of Birkenhead placed iron boats on the Irish canals,

and in 1830 Fairbairn of Manchester experimented with iron boats driven by a stern paddle on the Forth and Clyde Canal. Between 1830 and 1840 Fairbairn opened up iron shipbuilding works on the Thames, and Napier started business on the Clyde.



THE "SAVANNAH," THE FIRST STEAM SHIP TO CROSS THE ATLANTIC (1819).

Owing to shortage of fuel part of the "Savannah's" voyage was accomplished under sails. The first ship to cross the Atlantic entirely under steam was the "Royal William" in 1833.

In 1819 the Atlantic was crossed under sail and steam by the *Savannah*, an American boat, but it was not until 1833 that the *Royal William* managed to do the whole journey by steam in 20 days. Regular trans-Atlantic traffic did not begin until 1838, when companies were established in London, Bristol, and Liverpool respectively. The Great Western Steamship Company (Bristol), built the first liner, the *Great Western*, but in the meantime, the

Sirius had been acquired by the London Company; it sailed from London to Cork, and thence to New York, the voyage taking 17 days. The *Great Western* started much later, and arrived a few days after the *Sirius*.

These three companies died out, though their influence had been immense. Cunard, in 1839, received a large subsidy from the Government on condition that he carried the Atlantic Mails at fixed times; he built four liners similar to each other in every respect. By the pecuniary help he received he was able to crush competition.

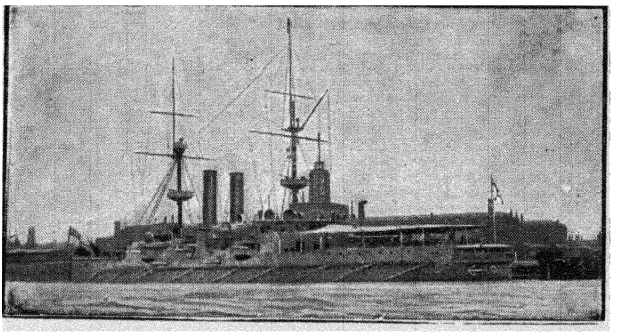
Between 1839 and 1867 most of the great steamship lines were founded.

In 1836 John Ericsson showed the possibilities of screw propulsion, and in 1839 the *Archimedes* was fitted with a propeller. The Admiralty first made use of the screw in 1843, but it was not until after 1860 that real iron screw-propelled warships were generally adopted. The screw only gradually displaced the paddle. In 1860 the *Great Eastern*, designed by Brunel, made use of both, but the design was too ambitious, as at that time there was not enough power to work it efficiently; it was, however, a forecast of the steamships to come. In 1861 the *Scotia* sailed from Liverpool to New York in 9 days.

In the " 50's " the chief advance was in the substitution of the iron and screw for the wooden paddle steamer. The next decade saw the use of the compound engine, invented by John Elder of the Fairfield Engineering Company of Govan. The economy in fuel effected by this device made steamers profitable for long distance cargo traffic. Before that time they were used mainly for swift, regular, and reliable passenger and mail traffic. Gradually the picturesque sailing ship declined in importance, and even the " tramps " with no permanent sailing routes, are driven now by steam power. Triple and quadruple expansion engines followed later. In 1894 Parsons invented the turbine, and the rotary began to displace the reciprocating

engine. At the present day the internal combustion engine is rapidly turning the steamship into a motor ship.

After 1880 the inventions of Bessemer and Siemens made possible the steel instead of the iron hull. Apart from the building materials and the engines, the main lines of development during the last fifty years have been in the direction of specialisation of types, and in the increasing

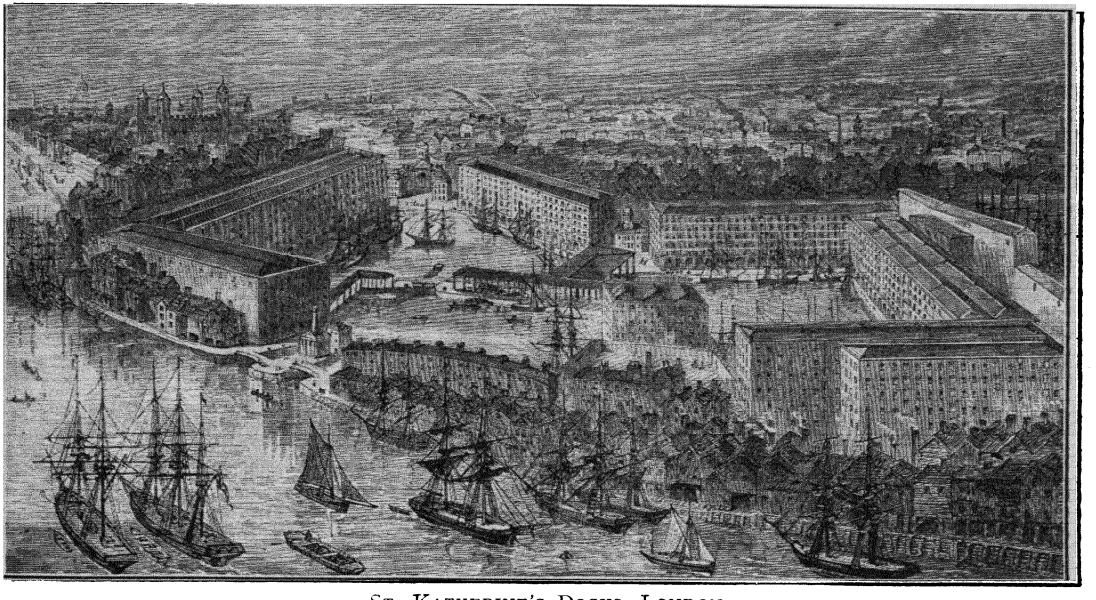


DREADNOUGHT.
The first Dreadnought was built in 1906, thus opening up a new age in naval shipbuilding.

size of ships. The *Lusitania* and *Mauritania*, both built in 1907, with the ill-fated *Titanic*, represent modern achievements. The two former required a horse-power of 70,000 when travelling at the rate of 25 knots an hour.

Since 1910 competition between the Cunard and the White Star, and between England and France and Germany for the North Atlantic traffic, has given a special impetus to the development of the very large ship. Further progress in this direction will probably be limited, not so much by difficulties of design, as by the question of dock accommodation.

The nineteenth century witnessed a development in dock construction parallel with that of the evolution of



ST. KATHERINE'S DOCKS, LONDON.
Early Nineteenth Century.

steam-shipping. Modern dock development in London dates from the completion of the West Indian Dock in 1802. This was followed by the East India Dock in 1808. The system on the south side of the river commenced with the Surrey Commercial Dock Company in 1810. The first dock capable of handling modern traffic, the Victoria Dock, was built by Brassey in 1855; this was followed by the Royal Albert in 1875, and the Tilbury Dock in 1882. In 1908 the Thames system came under the unified control of the Port of London Authority.

Liverpool docks date back to the early eighteenth century, but modern developments only began with the formation of the Mersey Docks and Harbour Board in 1857. Since 1850 upwards of seven miles of docks have been constructed on the north side of Liverpool in the direction of deeper water. The most recent dock, the Gladstone (55 acres), was opened in 1927.

Southampton was only reconstructed for modern ocean traffic in 1895, when the Prince of Wales Dock was opened. Since then progress has been phenomenally rapid owing to the fact that Southampton has deep water facilities much superior to those of London, Liverpool, Glasgow, and Hull. Vessels of the modern super-class type can only enter and leave these ports at high tide, and the expense of keeping the channels clear is considerable. At Southampton the largest ships can enter at any hour of the day, at any state of the tide; hence passenger traffic is leaving the Mersey and Thames for the South Coast. During the present century the Trafalgar Graving Dock, the Open Ocean Dock, and the Floating Dock, capable of holding the *Majestic*, the world's largest liner, have been constructed at Southampton.

6. The Effect on London

London had immense natural advantages, and it could make full use of the new communications. The hills by which it is enclosed are pierced by gaps perpendicular to

their direction, making railway construction easy, and in the early days of shipping it had overwhelming advantages also. To-day, however, the shipbuilding trade has disappeared completely, though commerce is flourishing. Southampton is becoming a rival of Liverpool for the Atlantic trade; Hull has a rival nearer the sea in Immingham. Plymouth is retaining its position, but the magnificent harbour of Falmouth is neglected because the railway line thither passes through difficult country. All the western ports now must fear a rival in Galway or some neighbouring harbour, within three days of America. The Channel tunnel, together with a tunnel from Stranraer to Larne, would revolutionise the shipping of North-West Europe.

7. Tramways

We must now consider newer methods of locomotion. Tramways are comparable to light railways, and their importance is exclusively local. Hence they tend to be controlled by public bodies. The word is probably derived from the Swedish, and means a log of wood: such logs were used on the track of the earliest wagon roads; the word has no connection with the engineer Outram, who built tramways. Modern examples date from 1832, when one was built in New York, and another later in Philadelphia, where the companies had to give up the convenient but dangerous step-rail for the grooved rail.

Tramways were introduced into England by Train in 1860, and they were worked by horses: this system has practically died out. Horses were superseded by steam-power about 1880, and solid rails became necessary. Cable tramways were introduced in 1884; their drawback was their very heavy cost of construction and their lack of speed. Working expenses were, however, low, and the trams could be used on steep slopes. The system still exists at Matlock and a very few other places.

Steam cars were replaced by electric; the system first originated here about 1890. The cars are quick and reliable, and working expenses are not too high. The two systems are the overhead and underground trolley respectively. Cathedral cities like Lincoln may rightly object to the unsightliness of the former method, but convenience of construction, of repair, and the small expense of working are in its favour. The overhead system practically holds the field.

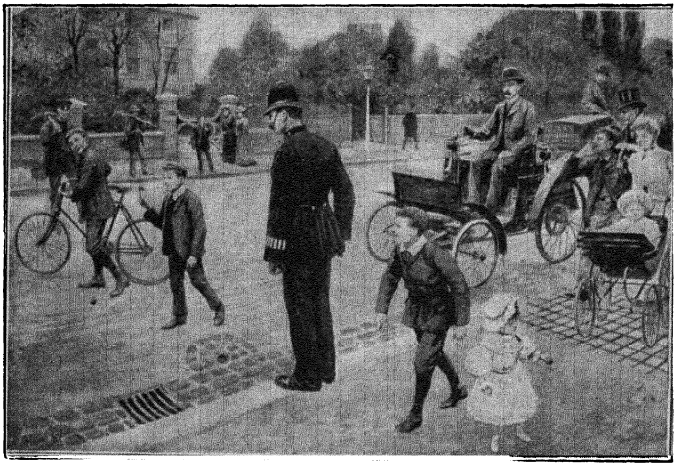
Electric trams lead on to urban railways. These are excessively costly to construct; but in large centres, such as London and Glasgow, they attract a very large passenger traffic. Two systems have been used; the London tubes are deep down and bear little relation to surface features. They must be reached by lifts, with great expenditure of time and trouble. The shallow system is met by great difficulties in the way of drainage and street foundations. The important Metropolitan railway has an intermediate system. The earlier steam railways (*e.g.* the City and South London) poisoned the air of the underground passages, so that now the London urban railways have been electrified, and lines run far into the country. The Liverpool overhead railway is similar.

Tramways and urban railways have one great social advantage. They have made it possible for city workers to live out in the country. As the town is left behind, the possible area which can be used for building purposes is increased; there is more land ten miles from the City than two miles from it. Again, the middle and upper classes leave the city, and their large houses are divided into smaller portions. Hence overcrowding is doubly relieved. It will be noticed how far we have travelled from the original conception of the old wagon roads, which existed merely to transport bulky commodities. The tramway system is not without disadvantages in busy thoroughfares, and it may be superseded by the motor bus in the future.

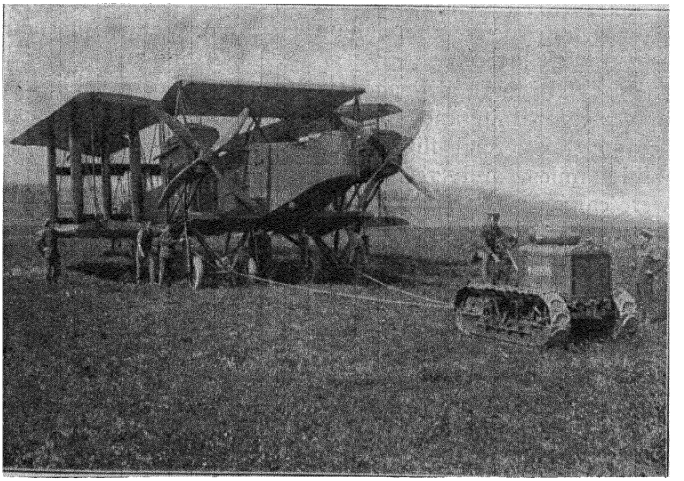
8. Motor Cars

Following on Trevithick's steam car in 1802 a development ensued which seems likely to have favourable results. A system of motor coaches was instituted in 1824, but there was great opposition. In 1865 it was destroyed by a Bill which enacted that there should be three persons employed to drive the car, that the maximum speed should be four miles an hour, and that a man holding a red flag should walk in front. In 1885 Butler made a motor tricycle worked by an internal combusion engine, and Daimler used petrol on his motor bicycle; motor cars were gradually perfected. The Act of 1865 was repealed in 1895, when the introduction of petrol-driven cars showed that a revolution was in progress. The heavy commercial cars chiefly interest us. Steam has long been used for road rollers and for heavy traction, but petrol engines have now come into use; the same principle has been followed in motor boats, and in auto-rail cars (without separate engine) on lines where there is a small passenger traffic.

The motor car industry has developed enormously and the development continues. The great railway strike of 1911 gave an impetus to road traction, and it seems as if the highways may regain some of their old importance. A regular heavy motor traffic exists across the Pennines, between Huddersfield and Oldham, and between Halifax and Rochdale. Here the difficulties of communication have been mentioned; railways and canals exist, and yet the roads are increasingly used. In London the motor omnibuses practically hold the field, and nearly all the provincial towns have now become linked up in this way. If improvement continues (and the motor industry is still in its youth), the effect may be as startling as the introduction of the railways. Coventry has grown faster in the twentieth century than any other English large town because of its cycle and motor industry.



THE FIRST MOTOR CAR IN ENGLAND, PRE[illegible]BY ITS RED FLAG.
The red flag rule was abolished at the close of the nineteenth century.



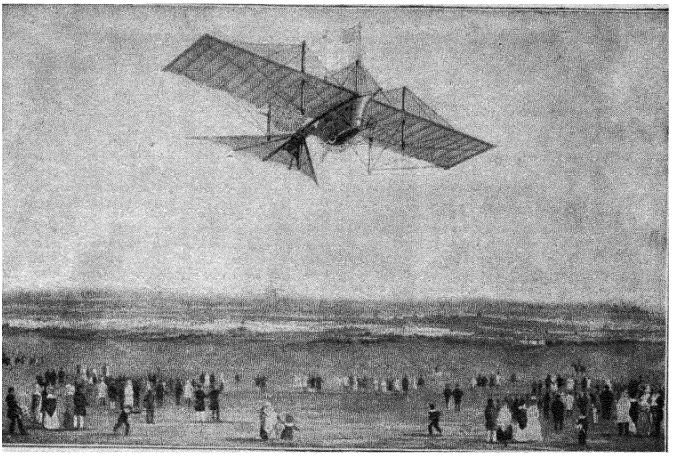
THE GREAT WAR, 1914-18.
A Handley-Page bombing plane, wings folded, being moved into position by a tractor at Lingescourt Aerodrome in 1918.

9. Aviation

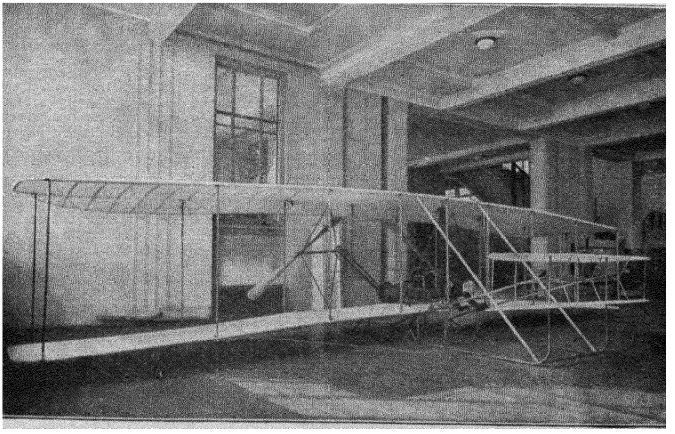
Aeroplanes were in the experimental stage before the outbreak of the European War in 1914, when they began to be developed rapidly. Maxim, about 1900, made a model driven by steam; Lilienthal (Germany), Pilcher (England), and Chanute (America) were the real pioneers. The brothers Wright (America) in 1905 managed a flight of a minute, using a petrol motor, and two years later flew twenty-two miles. Wilbur Wright, in 1908, stayed in the air for over two hours; and the next year saw the lighter, quicker, and more mobile monoplane, as opposed to the former biplanes. Blériot crossed the Channel and Paulhan flew from London to Manchester in twenty-four hours. In 1910 the Alps were crossed, and the next year the circuit of great Britain was completed. Military necessity led to a high degree of efficiency being reached by 1918, and in speed, lifting power, and endurance alike the ground was prepared for the commercial application of the new method of transport after the war. The Atlantic has been crossed and regular postal, passenger, and goods services established in Great Britain and to the Continent. In 1924 some 28,350 commercial flights were made, covering over a million miles; and 57,222 passengers and 541 tons of goods were carried with only two accidents.

The speed of 300 m.p.h. has recently been reached (1928), but of more commercial significance has been the re-crossing of the Atlantic and the crossing of the Pacific, however little may be the present practical importance of such flights. The quick development of aviation may be instanced by the fact that a single British company has flown more than 2,000,000 miles in the last three years, and carried nearly 50,000 passengers.[1]

[1] Since 1928, aviation has progressed to such an extent that it is impossible to give a detailed account here.



AN EARLY ATTEMPT (IN 1843) TO CONQUER THE AIR.



WILBUR WRIGHT'S FIRST AEROPLANE.
The Wright brothers made their initial flight in 1903.

CHAPTER V

THE AGRICULTURAL REVOLUTION

1. The Old System

Though we have made a separation between the various economic activities of the nation, yet the connection between them must always be noticed. After 1760 we find that changes other than industrial take place, and it is tempting at first to suppose that this is mere coincidence. We cannot accept this view.

As the population of the towns increased, partly by natural causes and partly by migration from the country, it became evident that more food was required. The increasing wealth of the townspeople, together with the growth of a political sentiment in favour of increase of population intensified this effect. The land had lost its most efficient cultivators, and the remaining farmers adhered to conservative methods. The result was a steadily increasing demand for agricultural products, not only corn, but also wool and flax for manufacturing purposes, and this demand could not be satisfied. In 1773 England ceased to export corn. We saw that the open-field system was essentially stable; though not perfect, it could resist change to a certain degree, after which the system would rapidly break up. It was the counterpart of the mediaeval gild system of manufacture.

Under such conditions to-day we should look to foreign countries for an increased supply. Then, however, Australia, the prairies, and the Argentine were not opened out, while the spare produce of Europe was kept out by duties, in accordance with the mercantile system.

Old methods and systems were thus doomed, and the change took place with such speed that it merits the title

of the "Agricultural Revolution." Roughly, it may be said to cover the years 1760-1830. The old imperfect systems and methods had persisted because the demand for produce increased so slowly that existing institutions could be adapted gradually to make any required change without disturbance. Enclosures had almost ceased in 1760, yeomen had not then disappeared, and experiments were looked on as at least impracticable by many people.

2. Cause and Effect of the Revolution

Beneficial forces were at work among agriculturists, but the real motive power came from outside; as always, we must be extremely careful when investigating cause and effect, as one reacts on the other, but we can probably say here that the agricultural revolution was secondary to the industrial, and a direct effect of it, though the ground had been already prepared. The agricultural revolution made possible the full development of industrial progress, but it was not of such a startling or far-reaching nature as to provide a means of directly quickening it. The agricultural revolution had to come, and it was prophesied before industrial developments were dreamt of, but the industrial revolution defined the time of its coming.

On the whole the reasoned opinion of mankind would probably be that the industrial revolution was beneficial, though there were immediate serious drawbacks. The same conclusion will be reached as regards agriculture, but the bad effects were not so marked, as the revolution was not so sudden or effective as the companion change; and they were the less necessary as the progress could have taken place more gradually and should have begun at an earlier time. Certain harmful changes were permanent.

Again, the change is bound up with the revolution in communications. Here, however, we must say that the improvements in agriculture had a greater direct effect on transit than on industry. In country districts especially,

the roads would be used mainly for agricultural produce, and even where towns existed, these would draw in supplies from a larger area as transit improved. Hence increased production stimulated the improvement of roads, and this again reacted on production, making agriculture possible in districts formerly inaccessible. Canals and railways followed the same course. The effect of the first railways in cheapening produce has been mentioned, and it was typical.

More produce could be obtained obviously in two ways: the amount of available land could be increased, or the land in use could be more profitably employed.

3. Land Settlement

If we take a new fertile country, the best lands will tend to become settled first; of course some land is marshy or consists of forest, which will be extremely productive when prepared, but for the moment it is infertile. Newcomers will have a large choice, and will take the next best land as regards fertility or accessibility. Now if land is free or cheap, it will pay cultivators to sow lightly over wide areas, taking no trouble and allowing crops to look after themselves. This is called " extensive " cultivation. If a large population grows up, there will be more claimants for the land, and rents (according to the law of supply and demand) will rise. Hence it will be more profitable to apply extra capital and labour to the land already possessed. Even with free land, a limit may be reached after which it will be more profitable to cultivate existing land than to extend cultivation. When much labour and capital are applied to a small piece of land, cultivation is said to be " intensive."

4. Rent

On the assumption that all the more fertile land is taken up, new land must be poorer in quality, and will yield a

smaller return than the first. Hence the farther cultivation is taken, the worse becomes the yield. If it is just profitable to till a certain piece of new ground, the original land must be very much more profitable. Hence the most fertile land can bear a high rent; if there is a landlord who looks after his own interest and understands the situation, the rent of a piece of land will be the full difference in value between it and an equal amount of the least profitable land. Whether it will be exacted is another matter. Sometimes this "economic rent" is exceeded, and we get the "rack-rent" known to Irish peasants.

A time finally comes when the original land will be worked intensively. Now however hard a man may work on the land, there are factors, such as sun and air, which he cannot control. Hence if he doubles the application of his labour and capital (other things being equal), his produce will be less than doubled.

Here again a limit is reached, so that a balance must be held between extensive and intensive cultivation. The law is fairly general, and is called the "Law of Diminishing Return."

The last capital, etc., applied is used at a disadvantage, and so if this is to be profitable, the first capital applied must have been very much more so in proportion.

Hence a farmer can afford to pay rent on the capital and labour most favourably applied, as they leave a large balance, and this will again be exacted by an acquisitive landlord.

A farmer should so contrive to arrange his capital that he would gain no more and no less by extending cultivation than by applying the same capital, etc., to his old land. This state is never exactly realised; it is the ideal, and all farmers would gain something were they either to buy new land or work the old more carefully, as the case demanded.

Thus obstacles confront the farmer, whichever way he turns. Hence we may say that where a sudden increase

of agricultural produce is demanded, the excess must be grown at a higher cost. A farmer would not grow the excess if it did not pay him, and he will charge the same price for all his produce. Hence the price will be determined by that produce grown at greater cost, and such a demand will thus raise prices.

This will make farming more profitable, and the agriculturist will try to increase his produce. This can only be done ordinarily by working under great difficulties, thus increasing the price too much. Hence an attempt will be made to overcome the working of diminishing return.

5. Enclosures

The way out is suggested by the condition "other things being equal" (see last Art.). If the stimulus to production causes the farmer to be jolted out of conservative methods and to clear away obstructions that ought to have been removed long before, then increased production can occur without loss. Such increase may directly stimulate new methods and processes.

This actually happened after 1760, but at the same time there was a temptation to acquire new land. This could be done by large landowners in two ways; either by monopolising the common fields or by bringing the waste land into cultivation. There is a connection between this and the better using of land; new methods could not well be carried out in open fields, and efficient cultivation had to follow redistribution of the land.

Hence in the first place became prominent an enclosure movement, resembling the Tudor activity in that it was carried on for the sake of the large landlords, but with the essential difference that the aim was to increase the quantity of produce, and was for the sake of tillage rather than pasturage. In many cases, too, there was the same lack of regard for common rights. The tenants of the open fields were dislodged, voluntarily or not. Enclosure

was very expensive, as a private Act had to be carried through Parliament; and it is by the number of such Acts passed that we are able to trace the course of the movement.

Attempts had been made before 1760 to increase the amount of arable land; indeed, enclosure appears to have proceeded continuously through the seventeenth century,[1] but after 1760 the movement assumed much greater proportions, and reached its maximum just after 1800.

The War-period was one of very great activity in enclosure; from 1798-1810 Parliament assented to 956 Bills, and 771 from 1811-1820.

The usual procedure by which land was enclosed was to present a petition to Parliament by persons locally interested. On this petition, a Bill was introduced, which was referred to a Committee, usually a select Committee, after its Second Reading. If the Report of this Committee were favourable, the Bill was subsequently passed and Commissioners were sent to the parish concerned to arbitrate between conflicting interests, and make an award.

To what extent this system was abused it is difficult to say. There is no general agreement among authorities. That land was enclosed with little respect for the rights of the weaker parties cannot be denied. In many cases, these private petitions were drawn up by the principal landowners of a district meeting in secret, and the inhabitants knew little or nothing of the details until the Act was passed.

In any case, effective opposition was difficult on account of the heavy legal costs incurred. Considerable fees had to be paid to Parliamentary officials; witnesses had to be sent to, and maintained in London during the enquiry; and legal assistance had to be obtained. All this, of course, was quite beyond the power of men of limited

[1] Part I., Chapter V.

means, so that the balance of advantage was decidedly in favour of the large landowners.

6. The Action of Parliament

Parliament had no very definite policy to offer at first, beyond gradually inserting safeguards to the public interest in Private Bill Enclosure procedure. Later, the landed interest making itself felt, Parliament lent its aid to the enclosure movement. In 1801, an Act was passed cheapening the process of legal enclosure. In 1836 the enclosure of common fields was greatly facilitated. An Act was passed empowering two-thirds of the possessors of open-field rights in a parish to nominate Commissioners and enclose the district; or seven-eighths of the number could enclose without the aid of Commissioners. It was now possible for a number of poor tenants to make their influence felt; before that time the rich landlords had been all-powerful.

In 1845, the same system was extended to the wastes. Many commons throughout the country, formerly almost useless, were now coveted by rich men, and much enclosure, largely illegal, took place. Actions were fought, but the movement continued. Wastes like Epping Forest were saved and are now jealously guarded. The health and recreation of the people in the large towns like London depend on the preservation of such open spaces, so that their enclosure had to be stopped. In 1852 it was enacted that Parliamentary sanction must be given to all new enclosures, and in 1893 the decision was left in the hands of the Board of Agriculture. To-day no enclosure of waste lands would be permitted unless it was shown to be in the common interest

These Parliamentary statutes must be distinguished from the private Acts necessary for enclosure. If a landowner wished to enclose land he had to get a Bill through Parliament for that purpose, hence enclosures

tended to fall into the hands of the richest men. These private Acts gradually increased in number during the first half of the eighteenth century, and became very important after 1760. They declined after 1780, but soon increased again till 1800, after which time they gradually diminished.

7. The Economic Effects of Enclosures

The purely economic effects of enclosures were undoubtedly beneficial, though some economists think that they have been over-estimated. Theorists had long seen that the open-field system was doomed, and Arthur Young threw all his influence against it. The defects of the old system are obvious. Under the common husbandry no cultivator could adopt an improvement unless he could get all his neighbours to assent to it. Cross ploughing of the long strips was impossible, and it was difficult to turn the plough at the end of the furrow without trespassing on an adjoining holding. If the balks between the strips were left unploughed they were nurseries for weeds; on the other hand, to plough them down, as was often the case, led to disputes over boundaries. Again, much time and labour was lost in taking men and horses from one to another of the scattered strips. Common pasture land was usually over-stocked with cattle, and it was difficult to keep down diseases when all the sheep of the village were herded together in one flock.

It is possible that some of these defects were exaggerated by the enclosure enthusiasts of the end of the eighteenth century, but they were undoubtedly real. Once land was enclosed the owner could take advantage of the new methods of farming, and put the land to the most economical use. This was a point of capital importance, as under the open-field system much land was put under the plough that was naturally suited for grass. Again, winter crops could be sown; this was impossible so long as the land was held in common, as from harvest time to February

the village cattle and sheep were pastured in the arable fields.

Until the land was enclosed, proper drainage was practically impossible, for if one man did attempt to drain his strips, his work could be rendered futile by the neglect of his neighbours.

In various ways, therefore, enclosures raised the standard of cultivation; under the old system, the standard was usually that of the worst husbandman. Only the best and strongest land could stand the open-field system without exhaustion; enclosures, by allowing a more varied use of the land, provided a means for restoring the fertility of the exhausted soil. A good deal of arable land of poor quality was enclosed simply because the yield was diminishing; indeed, when the price of corn was low it was more profitable to lay it down to grass.

By 1790 the economic superiority of individual ownership was so established that the opponents of enclosures moved their ground of attack to the social effects.

8. The Social Effects of Enclosures

The immediate social effect was bad, and the disadvantages have persisted in some measure. The landowner generally gained, for his rents increased considerably, but the poorer farmers suffered, for more capital was needed on enclosed lands. That the poor suffered is beyond dispute. "By nineteen Enclosure Acts out of twenty the poor are injured, in some cases grossly injured," wrote Young in 1801. It is true that under the later Acts, attempts were made to treat them fairly, and sometimes monetary compensation, and sometimes plots of land were given them as compensation for their loss of common rights; but the expense of enclosing small allotments was proportionally very high, and they had to be sold, while the money received was usually squandered. One of the most serious losses the peasants suffered was the loss of their cows.

Eden argued that the advantages which the cottagers derived from the commons and wastes were apparent, rather than real, as instead of keeping regularly to labour they spent their time in picking up dry sticks, or grubbing on some bleak moor. Their starved pig or two, and their wandering geese, besides involving them in constant disputes with their neighbours, were dearly paid for in time, care, and bought food.

In many cases, it must be admitted, the grazing on the common land was worth very little, and as was argued before the Committee on Waste Lands in 1795, the small rent paid by the peasant to the farmer for grazing on enclosed land was more than repaid by the extra yield of milk, or the additional weight of the beast when it was sent to the market.

But when due allowance has been made for possible exaggerations, the fact remains that the poorest villagers suffered both material and moral damage. Enclosing the commons deprived the peasants of means of supplementing their incomes. Men who enjoyed rights in the commons had an interest in the land, a feeling of independence, and a motive for thrift. Grazing rights allowed them to keep livestock; the woodlands provided them with free fuel.

Prior to the Agricultural Revolution, labourers in many parts of the country had regarded day work for wages on the lands of farmers as a by-employment which supplemented their earnings in other industries; unfortunately, however, the enclosure of the commons took place at a time when the domestic industries of spinning and weaving were leaving the home for the factory system. The result was that many labourers were thrown on the Poor Law with disastrous results.

9. The Agricultural Revolution and Organisation

During the period 1790-1850 the small farmer disappeared, and the modern system of large-scale capitalistic

farming developed. There were various reasons for this. The large farmer could produce more economically than the peasant; he could afford better implements, better cattle, and use them to greater advantage. The peasant lacked the capital necessary to take advantage of the enclosure movement, and he was less able to stand the strain of a series of bad harvests. The years 1793 to 1830 were specially unfortunate for the peasant farmer. During the French Wars public opinion was on the side of the large farm as it appeared vitally essential to the food supply of a nation at war. The landowner preferred it also. The capitalist farmer could pay a higher rent; he could pay it more regularly, and he required fewer repairs. The agricultural depression that set in after the Peace of 1815, and a series of bad harvests, completed the ruin of the smallholder and drove him almost entirely off the land.

The above circumstances explain the practical extinction, not only of the copyholder, and leaseholder, but of the small freeholder as well. With the large farm came into general practice the system of the long lease. A tenant would not risk his capital in improving the land unless he had some security of tenure, as well as some guarantee against increases of rent. Hence the tenants pressed for longer leases, and these became the general rule.

The disappearance of the small owner, the yeoman who farmed his own small estate, and the peasant proprietor is of peculiar interest, and the most unfortunate phenomenon of the English Agricultural Revolution. At the end of the seventeenth century, Gregory King estimated the number of the small freeholding families as about one-seventh of the population, and Chamberlayne, writing about the same time, stated that there were more freeholders in England than in any country of a similar extent in Europe. By the end of the Napoleonic Wars, this class had practically disappeared, though according to Hasbach they were still more numerous than was stated by Arthur Young.

The reasons why this once sturdy class had so diminished in numbers by the end of the eighteenth century are social, economic, and political. The Revolution of 1688 made the landed gentry supreme, and as national and local administration passed entirely into their hands, land, being the foundation of social and political influence, was sought after by successful business men who had amassed fortunes in trade. This class bought out the yeoman, and as owing to the system of strict family settlement the transfer of land was difficult and costly, there was little breaking up of estates to counter-balance the constant buying out of small owners.

To what extent the enclosure movement helped to ruin the yeoman class is not easy to determine. In many cases, no doubt, the enclosure of waste land was a serious blow to the small owner, but it is difficult to establish a definite connection, because as late as 1790, in some parts of the country, no serious inroad had been made in their numbers. Most probably the decisive factor was the increasing competition of the capitalistic farmer after 1800, and the high rates caused by the Speenhamland policy. The yeoman had to pay heavy rates to enable the labourers to be employed at non-economic wages, and if he were merely a cottage proprietor, it was difficult for him to find work, as no one with property was eligible for parish relief, and without relief of some kind the wages paid were insufficient to support a family.

Between 1790 and 1830 the plight of the agricultural proletariat was most unhappy. As has already been noticed, the enclosure of the waste lands diminished substantially the real earnings of the labourer, and his position was made worse by the shortage of cottage garden ground in many parts of the country. It is not easy to draw an exact picture, as conditions varied from county to county, but Cobbett's statement that the labourers were most miserable in the corn districts is probably correct.

Arthur Young recommended that in the case of extensive wastes every cottage on enclosure should be secured sufficient land on which to keep a cow, the land to be inalienable from the cottage and the ownership vested in the parish; and Lord Winchelsea urged that a good garden should always go with a cottage. If some such scheme as that of Young or Winchelsea had been adopted on a universal scale, a healthy rural population might have been planted on English soil.

Large-scale capitalistic farming changed the relations between farmer and labourer in much the same way as industrial relationships were transformed by the transition from the domestic to the factory system. The labourer no longer boarded as a rule in his master's house, where the farmer lived and worked with his men; the old ties of mutual interest were broken, and he worked for this or that master as occasion arose.

On the other hand, the farmer often rose in the social scale. With the removal of restrictions on private enterprise, the efficient came quickly to the front, and a new intermediate social class was created.

10. The Importance of a Healthy Agricultural Population

Agriculture since 1760 has presented an alternation of good and bad times. Here, almost more than anywhere, we must keep in mind the essential difference between the prosperity of the country as a whole and that of one section. Other things being equal, an improvement in the condition of any part of the nation has a beneficial effect on the rest of the country. The spending power of the portion affected is increased with good results to those who cater for it. Often, however, when one portion advances other changes occur, and the result may be a loss to the country as a whole, and vice versa. Again, if the whole country progresses it may be at the expense of a small minority, and vice versa. Thus when we speak of

bad times in agriculture, the reason may be that the country as a whole is obtaining its food cheaply.

Economically, this may be true enough, but socially, the effects are unfortunate. A sound agricultural population, healthy and well-fed, is an essential condition for a perfect State. The country population is a foil to the quick and more highly-developed intellect of the townsmen who are apt to force their mental growth at the expense of their physique. Again, it supplies a check to the excessive passion for change for its own sake which is often to be found in highly civilised communities. Lastly, it supplies a reservoir from which the city population obtains some of its best material. Hence the tone of the agricultural population is vitally bound up with the interests of the whole country, and there may be occasions when some economic sacrifice may conceivably be made for the purpose of averting some disaster threatening the farming interests.

11. Vicissitudes during the Period 1800-1850

The Peace of 1815 began an agricultural depression. The paradox is explained by the fact that prices had been artificially raised during the war, tempting farmers to extend cultivation, and raising rents. When the stimulus was removed a reaction set in, rents were too high and markets could not be found. Even the Corn Laws, which tried to retain the protection afforded by the war, aided the farmers less than it hurt the people. A series of bad harvests occurred, and in 1819 the currency was improved, inconvertible notes being abolished. These notes had passed at less than their face value, so that farmers who had borrowed money before 1819 had to pay it back with gold, and the loss sustained was serious. More wet seasons caused the development of rot in cattle, scab in sheep, and disease in corn, and this state of things lasted till the forties, when the railway mania, though it wasted much

capital, yet in doing so supplied the farmers with better means of marketing their produce.

The effect was that the shareholders paid an involuntary subsidy to agriculture. Demand more than kept pace with supply at the old prices, and these were raised. A temporary depression after the crisis of 1847 lasted for five or six years, but then steady progress set in, broken only by a few bad seasons and the occasional outbreak of a Continental cattle disease, *i.e.* rinderpest.

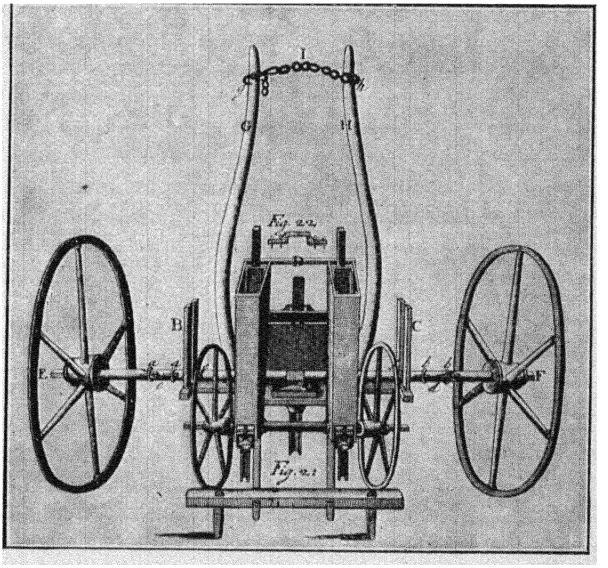
12. Agricultural Improvements

The Agricultural Revolution depended more on theoretical knowledge, or at least on written experience, than the Industrial Revolution, which was the work, as a rule, of practical and often uneducated men. Agricultural literature, from Walter of Henley in the thirteenth century to Arthur Young at the time of the Industrial Revolution, played a large part in the improvement of processes. During the first half of the eighteenth century the ideas of earlier writers, FitzHerbert (1523), Tausser (1562), Scot (1574), and the seventeenth-century innovators, Foster, Hartlib, Weston, and Blith, were applied, made known, and extended by Tull and Townshend.

Agriculture probably owes more to Jethro Tull than to any other man, for the principles set out in his book, *Horse-hoeing Husbandry* (1733), were destined to revolutionise British agriculture, though not in Tull's life-time. Like most improvers he was faced with violent opposition. Scotland was the first to grasp the value of the system, and it gradually spread southwards into England, but even at the end of the eighteenth century Arthur Young was opposed to it.

His main principles were clean farming, reduction of seed, and drilling. He believed that fallowing and manuring were unnecessary, and he actually succeeded in growing without manure successive wheat crops on the same piece

of ground, gaining a greater yield per acre than his neighbours who followed the ordinary course of farming. But his immediate influence was small. The open-field farmers continued to sow broadcast, thickly, and at varying depths, and they gave no attention to his advocacy of the value of turnips and sainfoin, and the drilling of roots and wheat.



JETHRO TULL'S WHEAT DRILL.
From Tull's *Horse-hoeing Husbandry*.

The first step forward was taken when Tull's principles were put into practice by men like Lord Townshend of Raynham in Norfolk. Townshend's estates consisted for the most part of marshy or sandy wastes, yet in a few years they were transformed into well-cultivated and productive land. He revived the ancient Norfolk custom of marling, and practised the field cultivation of turnips and

clover. Following Tull, Townshend drilled and horse-hoed his turnips instead of sowing them broadcast. He also introduced the four-fold or Norfolk system of cropping in which cereals, artificial grasses, and roots were grown alternately.

13. Thomas Coke of Holkham

It was not, however, until towards the end of the century that the new methods were widely adopted when the new system of large farms and large capital found a powerful champion in Thomas Coke of Holkham, also in Norfolk. When he began his great agricultural work about 1776, his estate was little better than a rabbit warren, and scarcely an acre of wheat was grown from Holkham to Lynn. Coke was determined to grow wheat, and after experimenting for nine years with marling and claying, he succeeded in growing good crops.

He was a great advocate for sowing wheat early, very thick in the rows, and for cutting it when ear and stem were yet green, and he also believed in the early cutting of oats and peas. He was also perhaps the first Englishman to grow swedes on a large scale.

Coke also made valuable contributions to the improvement of live stock, mainly through attending to the quality of the grass. He was the first agriculturist to study systematically the kind of seed likely to produce the richest hay and most nourishing pasture. But his greatest title to immortal fame was his practice of gathering farmers together for consultation on agricultural matters at the annual "Holkham Gatherings." These gatherings, which began in 1778 and lasted until 1821, were attended by all nationalities and by all ranks of men, and at the last meeting in 1821, 7,000 people were present. The importance of these meetings as a means for the diffusion of agricultural knowledge is impossible to over-estimate, and it has been said that through their influence over 2,000,000 acres of waste land in England were brought under cultivation.

In this way, and through his personal example, Coke revolutionised English agriculture and enabled the country to grow supplies of food sufficient to maintain it during the Napoleonic wars.

14. Robert Bakewell

Robert Bakewell (1725-1795) was born at Dishley near Loughborough, and his improvements were mainly in breeding, though he saw that where there were many animals on a farm the question of manure was less pressing. His chief success was in sheep rearing. Down to that time England had been a wool country, and the mutton was treated as a by-product. As the population was now increasing rapidly, it became a matter of importance to provide sufficient food for the people. Bakewell saw that the old breed was of little use for the purpose, as the size of the body was too small in comparison with that of the rest of the animal.

He wished to obtain a barrel-shaped body, and selected his animals with that end in view. He rejected the customary idea that the blood must be constantly varied by the mixture of different breeds, and aimed at a small instead of a large bone. At last, he obtained the animal he desired, and the famous Leicester sheep, one of the best in the world, was the result. Before Bakewell's time little selection of animals had taken place; such as there was had been the choosing of the finest specimens to be killed and salted for the winter with the result that the breed was propagated from inferior animals. The Leicester sheep spread over Europe and America, and within fifty years the weight of mutton had been doubled.

Bakewell was less successful with cattle, but the reason may have been that he worked with poorer material. His Dishley breed was an improvement as regards the amount of beef produced, but the milking powers were sacrificed. The breed was famous for a time, but died out.

His black horses were suitable for draught purposes, and he is to be remembered as one of the first who treated animals with consideration.

As regards agriculture, he enormously increased his yield of corn by flooding his meadows, and he also used liquid manure.

Marshall, born in the North Riding, performed an important work in his Survey of Rural Economy (1787).

15. Arthur Young

Arthur Young (1741-1820) is the greatest name in the history of English agriculture.[1] He was born in London, of a Suffolk family, and was educated in that county. He was a great theoretical exponent of the best methods of agriculture, which was first made into a science by him. All his strength lay in observation and reasoning power; when he tried to put his theories into practice, correct though they were, he generally failed, sometimes hopelessly.

He first tried to work a small farm, but had to give it up; and in 1768 he made his famous "Six weeks' tour in the Southern counties," in which he studied Norfolk farming and gave his results to the world. Henceforth he was an advocate of large farms, capitalistic farmers, enclosures, and improved methods. Two years afterwards he made his "Six weeks' tour through the North of England," following the same method. In 1776 he travelled in Ireland, but, losing his notes, he had to repeat the tour at a later date. He had now travelled over 7,000 miles. In 1787 he made his first, and in 1789 his third, visit to France, at the latter date proceeding to Italy. Returning, he placed his unique experience at the disposal of the country.

As regards methods, he made a systematic survey of the soil, the seeds planted, and the nature of the ripened

[1] At least with the exception of Coke.

crops; he also investigated the conditions of land tenure. His industry was immense, his power of observation equally great, while he had the faculty of arranging his results in the best way. Added to this, he possessed imagination, and while his details were reliable, he could take a broad view. Farmers are not an imaginative race, and those in England at this time were no exception. Hence these were captured by the common sense and ability of Young, though they could not understand his ideals. Young advocated enclosures, not because he had any strong objection to common fields in themselves, but for the reason that the old system stood in the way of his projects—large farms, large capital, long leases, and more scientific methods of cultivation and stock-breeding. Capitalistic farming pleased him because he saw its results.

Young's great crusade against obstacles to good farming —open-fields, unreclaimed wastes, antiquated instruments and methods—was made at a most opportune moment. It succeeded because more produce from the land was urgently needed to feed the rapidly-growing industrial population; but unfortunately, the benefits of increased production went mainly into the pockets of the landlords and farmers, for the agricultural and industrial labouring classes derived little advantage until towards the middle of the nineteenth century.

16. Agricultural Machinery

Like the Industrial Revolution the Agricultural Revolution was a gradual and relatively slow process. Even in 1825 there was plenty of unenclosed land up and down the country, and the common field and fallow land had not disappeared from the Midlands in 1844. The only labour-saving devices of any importance used in England before 1830 were improved ploughs such as those of Small, of Rotherham; the threshing machine, invented by James Meikle of Dunbar (about 1784), and the horse tedder for

tossing hay, patented by Salmon of Woburn in 1800. Various patents were taken out between 1788 and 1816 for drills, reaping, mowing, and winnowing machines, and also for chaff-cutters and turnip slicers, but little use appears to have been made of them. Iron gates and fences, however, made their appearance in the north.

About 1830 experiments were made with the reaping machine in East Scotland, but with little success. Horse drilling and horse hoeing, though becoming more common, were not yet general even in 1830. Probably the most general advance was the substitution of iron tools for wood, and all iron ploughs and harrows came into use between 1830 and 1840.

The reaping machine was invented by Bell in 1826, but it was not widely used until after it was improved by Croskill of Beverley about 1853. This new machine not only cut the corn but laid it in sheaves. Between 1850 and 1870 steam-power was applied first to the threshing, and subsequently to the various cutting machines. The scythe also displaced the sickle and hook except in the remote parts of the Fens. Agricultural power machinery, like boot and shoe machines, developed first in America where large farms, cultivated extensively, rendered the use of power machinery more profitable and practicable than in England. Even to-day only the very large English farmers use the power plough and the various mechanical devices in vogue on the huge American and Colonial farms.

Perhaps the most important mechanical appliance invented since 1870 is the string binder, first invented by Appleby in 1879. Different varieties of this machine are now in general use as one of the most efficient substitutes for hand labour. The oil-engine, too, has proved a valuable aid for many kinds of farm work. Power-presses, invented (1880) for compressing hay and straw for transport have proved of great value for storage purposes.

Another important recent invention is the sheep-shearing

machine; and the introduction of the use of barbed wire and corrugated iron sheeting has reduced the costs of fencing and farm buildings very considerably.

17. Other Improvements

Rapid progress was made between 1760 and 1830 in relieving water-logged soil. In 1764, Joseph Elkington of Warwickshire began to attempt the under drainage of sloping land that was flooded by the bursting of springs. His method involved the use of the deep trench. He drained fields at Princethorpe in Warwickshire with trenches five feet deep. This method was a decided advance on the ancient custom of throwing the land into high ridges and leaving the furrows to act as surface drains, a device which robbed the soil of the fertilising agencies held by the rain-water in solution. Elkington's method was generally adopted until about 1835, when Smith of Deanston instituted the system of shallow drains, filled with stones and covered over. By 1850, the drain pipe had come into use. Hand-made clay pipes were first used in Kent, and machine-made pipes were tried in Essex in 1840. The general use of machine-made clay pipes followed the inventions of Parkes, Reed, and Scragg, 1843-7.

Drainage was a necessary step to profitable manuring, as only on drained land could manures be used without waste. Down to the end of the eighteenth century, the farmer was limited in his choice of manures to the ashes of vegetable refuse, and farmyard dung, and little was known of the requirements of plant life. In the second quarter of the nineteenth century, the science of Agricultural Chemistry was built up by Liebig at Giessen in Germany, and introduced into England by Lawes and Gilbert when the Rothampsted experimental station was founded in 1843.

That very important manure, nitrate of soda, was first introduced in 1835, and by 1840 rape-dust and bone-dust

manures were widely known. In 1843 Lawes began the manufacture of superphosphate of lime, while Henslow made the same manure from copralites found in the gravel in parts of South-East England. The import of guano from South America began at this time, and ammoniacal manures soon followed.

The institution of the Royal Agricultural Society in 1840 has done much to diffuse agricultural knowledge and encourage practical farming on scientific principles.

In the last forty years the chief advances made have been the discovery of basic slag as a phosphate manure (this was a useless by-product in iron manufacture); improved methods of preserving green fodder; and the use made of solutions of copper salts for destroying weeds. Implements, of course, have steadily improved, especially in America, where scientific farming is now highly developed. In 1889 a Board of Agriculture was again formed; its chief functions are to prevent the spread or introduction of disease, and to supervise the experimental and scientific study of agriculture. Artificial nitrates have been made in Norway by passing electric sparks through the air, the nitric acid formed being subsequently fixed by alkalies.

Since 1875, special attention has been paid to the scientific management of milk produce. The British Dairy Institute, The Royal Agricultural Society, the Agricultural Colleges, and the County Councils have all contributed to further the theory and practice of dairying.

Milking machines have been invented, though until the advent of the Lawrence-Kennedy and Duplex types, there was a great difficulty in keeping the tubes clean. In all the processes of dealing with milk scientific principles have made rapid progress. The principle of the separator, developed by Laval, Lefeldt, and Peterson has revolutionised the dairy, and it ranks with the reaper and the binder as one of the great innovations of the second half of the nineteenth century.

Following upon the separator came a host of dairy appliances—improved churns, milk-testers, milk-coolers, butter-driers, workers, and hardeners, steel-lined utensils, and other devices, but it is difficult to say to what extent these have come into general use.

18. Effects of Agricultural and Industrial Revolutions Considered Together

We have now seen that sudden progress occurred both in industry and in agriculture after about the year 1760, and it will be convenient to compare the effects in the two cases. We noticed that the cottage hand-loom gave place to the isolated water-mill, and then to the larger town factory. In fact, if we wish to find a phrase to describe the Industrial Revolution (in the wider sense) we must say that progress occurred through the introduction of large-scale processes. No doubt the effect of the Revolution at first was merely to extend the scope of domestic weaving, but factories came sooner or later. Practically all trades were affected, but new industries, *e.g.* cotton, were first altered in structure. All the manufactures, such as wool, which were suitable for production on a large scale were, sooner or later, transformed, though it is important to remember that even to-day many industries can hold their own when carried on by small-scale methods.

Though this tendency existed both in agriculture and industry, yet there were differences, depending on the quality of goods produced. Cotton and woollen goods may generally be produced at a cheaper rate when the quantity made is increased, as there are many economies possible when the machinery is used for a large number of goods. The price of a book sold in its tens of thousands is much less than that of which a few copies only are printed. Hence if one manufacturer already has a large sale, he possesses an advantage; and the more his business grows, the more easily can he crush his rivals. Hence up

to a certain point businesses tend to grow larger, while smaller ones tend to disappear.

Those commodities which are produced at a cheaper rate the greater the quantity made are said to obey the law of increasing return (contrast agricultural products).[1] In some businesses needing large capital, *e.g.* iron smelting, only a large firm can prosper, so that the smelting industry is in the hands of rich men. Other industries vary as regards the size of the businesses, but it may be taken that the greater the amount of expensive machinery required the larger the businesses will tend to grow. There are two main checks: first, a large business will need special administrative talent, which may not be forthcoming; secondly, however many goods are produced, it may be impossible to find a market for them, so that much ability must be expended in pushing the wares of the business in new directions.

Agriculture furnishes goods which so far in the history of the human race have never been in permanent superabundance. To-day especially, with improved transport, a "glut" or "over-production" of staple foods such as wheat is hard to imagine.[2] Again, agriculturists must depend largely on Nature, not only for raw materials (manufacturers do this also), but also for processes of growth, so that agriculture is less mechanical and calculable than manufacture, at present at least. The demand for agricultural products again varies less than that for manufactures. Thus agriculture has not fallen into the hands of men whose ability lies in discovering new methods and increasing sales, but more care has been exerted in improving the quality of the goods produced and in increasing the value of the land itself than in attaining a great production. But in common language the Law of

[1] This does mean a fundamental distinction between industry and agriculture as the early economists supposed.

[2] In a real sense.

Diminishing Return tells us that it does not pay to increase production too rapidly. Again, the manufacturer looks on his mill and machinery as means to help him to achieve his end; the agriculturist looks on his land as a thing in itself. Much capital sunk on the land is apparently lost; it merely improves the value of the latter.

19. The Agriculturist and the Manufacturer

This will prepare us for a difference in character between the new agriculturist and the new manufacturer. We have noticed the development of classes according to economic position, and we have seen divergencies appearing in the same social classes in town and country. Now we seem to see the birth of a new aristocracy, that of wealth. The new agriculturist differed little from his predecessors: he was a little more intelligent and open-minded. Manufactures, however, now required a special type of ability, till this time discouraged. Only those men who were independent of current ideas, were original, energetic, self-seeking, and rather callous, could hope to make large fortunes. The old manufacturer kept to old methods: he knew his inferiors personally and he was satisfied with an ordinary rate of profit. Again, he probably had an advantage in that he remained in his father's business. Now came the time for men who started with no capital and made their own way: they were those who looked on money as the one thing needful, and they had no aristocratic scruples to bind them. The keynotes to business became self-interest and keen competition.

The result was that as men with certain qualities had been selected by modern conditions to do similar work, a definite type, the manufacturer, grew up. At first he was not attractive, possessing all the sense of superiority of the old aristocracy, without its virtues; those very qualities also which rendered him so fit to be a " captain of industry " were those which showed him in such bad light

when he carried his business principles into his relations with his inferiors and also his equals in a monetary sense. In course of time the type has been toned down, and it is to-day gradually losing its distinctive qualities.

When a manufacturer became rich, he recognised that there was a feeling against trade in aristocratic society; hence he wished to acquire prestige, and one way was to acquire land. Hence many of the new large landowners had been manufacturers, and society was affected. The old exclusiveness was a little broken down.

20. The Separation of Agriculture from Industry

Differences widened between manufacture and agriculture, again, as their connection became less clear. Though both developed on a large scale, this very fact prevented any common working. A manufacturer, as his business grew, had to throw all his energies into his own work; he thus lost touch with agricultural pursuits, which again were put out of his reach while he remained in trade by the large scale on which they were carried on. Hence there developed a division of labour, socially speaking, between manufacturer and farmer; each found his own interests growing. The fact that a manufacturer, after giving up his trade, became a large farmer is no exception to the general rule. The connecting link had snapped, and that forcibly; the subject will be more fully treated later, but we may note that just as the small farmer or labourer was dispossessed, forcibly or not, so the hand-loom weaver was swept into the large-scale system and forced to concentrate his energies on manufactures. The weaver had generally been also a small farmer; and as both these classes now disappeared, so agriculture and industry diverged.

This had happened before, when the growth of handicrafts in the towns had specialised the gildsmen for their work, and long before that the merchants had formed a

race apart. Hence the Industrial Revolution had merely extended the scope of the trading interests without altering the essential structure. Even the revolutions in railways and other transit have not affected the social relations of merchants and manufacturers in essence.

21. Agriculture from 1850 to 1875

The period 1850-1875 was a good one for English farmers. The improvements made in the first half of the century now began to exert their full force. The money question became less pressing as loans for land improvements were instituted in 1846.

Until after 1870 the Repeal of the Corn Laws had no adverse effect on English agriculture, for America's mass exports had not yet come in, and Europe was too occupied with political questions to compete seriously with English produce. The decade 1852-1862 was one of the most prosperous that English agriculture has ever experienced; rents were rising steadily, and Caird, who had toured agricultural England in 1850, believed that the value of the land in this country would double before the close of the century. This opinion, which was founded on the fact that the population was increasing rapidly in a strictly limited area, failed to foresee the future effects of improvements in mechanical transport in opening up millions of acres of virgin soil in various parts of the world.

The English railway system, however, merely widened the home agricultural market, and the industrial prosperity of these years (1850-1870) was reflected in the demand for food-stuffs, especially meat. It was in this period that English cattle became famous throughout the world, and the improvements in sheep rearing were even more marked. Unfortunately, in 1862 England was invaded by the rinderpest (cattle plague). Thirty-six counties were infected within six months, and the outbreak lasted until 1866. Foot-and-mouth disease, which first appeared in

England in 1839, also caused continued trouble until the Board of Agriculture began to exercise powers under the Diseases of Animals Act in 1890.

The position of the agricultural labourer improved slightly during these years, for part of the redundant population was absorbed by new employments created by the railways, and by the demand for labour in the coal and iron trades. Improvements in shipping gave a stimulus to emigration, and large numbers of agriculturists tried their fortune in the United States and in Australia.

22. Joseph Arch

It was at the end of this period of prosperity that Joseph Arch began his agitation for better conditions for land workers. In 1872 he founded the Agricultural Labourers' Union and started a campaign for 16s. a week and a 9½ hours working day. When the farmers refused to grant this the men struck, and the agitation spread all over England. After a bitter struggle, the farmers gave way and wages advanced to 14s., and in some places to 15s. a week. Victory was temporary only; in 1875 the great depression began, and in 1879 wages began to fall again, and by 1882 labourers were taking what the farmer chose to give. From 1884 onwards the Union steadily declined, and ten years later it practically collapsed.

During its short life, however, the Agricultural Labourers' Union struck a mortal blow at the gang system. This system originated at the beginning of the century, when during the French Wars land was broken up in places where there were no labourers to reap the crops. These gangs, which included men, women, and children, went weeding and pea-picking, and the system was a bad moral one.

23. The Great Depression

After 1875 the good times came to an end. The full force of free trade was felt at last and American wheat

exports began to flood the English market. Grain also poured in from Canada, the Baltic, and South Russia. English land, which had to support the landowner, the tithe owner, the agriculturist, and an ever-increasing burden of taxation, could not compete with foreign virgin soils, and in 1884 prices suffered a collapse from which they have never permanently recovered.

Bad seasons, too, assisted the decline, for between 1874 and 1882 there were only two good harvests. The worst season was in 1879, but rot in cattle and other diseases also worked havoc. Bad harvests could no longer be compensated by a rise of prices owing to the new American competition, and farmers' capital and rents dropped 30 to 50 per cent. Hundreds of farmers were ruined, and thousands of acres of arable land went out of cultivation.

Foreign competition gradually spread to other branches of agriculture. Until 1877 imports of foreign cattle were confined to live beasts from European countries, but in 1867 Reece's freezing machine was invented, and during the next ten years various compression machines were patented (Gifford's, and the Bell-Coleman), devices applicable to cold storage on either land or sea. England was thus enabled to draw in unlimited supplies of frozen mutton from Australia, and the ruin of her agriculture was completed.

Parliament made some attempt to assist the industry. Grants were made in aid of local taxation and the ultimate liability for tithe charges was transferred from occupier to owner. More important still, the Railway and Canal Traffic Act made some attempt to equalise rates on the carriage of home and foreign produce. These measures, however, had no marked effect, and agriculture showed no signs of a revival until 1896, when prices began to rise again.

The ultimate cause of the depression is still a matter for dispute. The Royal Commission on Agriculture, which issued its first Report in 1894, attributed the cause to

mechanical transport and other inventions which increased the foreigner's competitive advantage in the markets of Great Britain, and one result of the Report was a revival of the demand for protective tariffs. Recent investigation has raised objections against this view. It has pointed out that the depression embraced industry as well as agriculture; that it was world-wide; and that corn was selling below the cost of production in Germany, America, and Australasia, just as in England. Only in India and the Argentine were agricultural prices maintained, and these countries were on a silver standard. The true cause of the depression, therefore, so it is argued, must be looked for in a shortage of gold.

This argument, which rests on the fact that the depression started at the time when Germany and other countries were making the transition from a silver to the gold standard, thus causing a greatly increased demand for gold, and ended in 1896 when the new supplies from the Transvaal had begun to influence the total amount in circulation, is of special interest in view of the contemporary world situation.

24. Recent History, 1896-1914

Between 1895 and 1914 English farming, in its endeavours to mitigate the effects of foreign competition, changed considerably in character. Wheat and mutton were replaced by dairy produce, fruit, and vegetables, the perishable nature of which afforded some natural protection. The urbanisation of the population, coupled with quick transport facilities, created opportunities of which the more enterprising farmers were not slow to avail themselves.

The land question began to take on a new aspect. At the beginning of the present century opinions were frequently expressed that industrialisation in this country had proceeded too far, and that a back-to-the-land movement

was necessary in the national interests. Grave obstacles, however, stood in the way of a new revolution. English landowners preferred the large to the small tenant; the rural housing shortage was acute; the most suitable type of smallholder lacked the necessary capital and marketing facilities. It was to remove these difficulties, as well as the defects of previous Acts, that the Small Holdings Act was passed in 1907, and Small Holdings Commissioners appointed to assist the Local Authorities.

Down to 1914 these efforts met with only partial success. Small holdings have proved successful on the Continent, but mainly where the soil and climate render them suitable for industrial crops such as tobacco, hops, sugar-beet, colza, flax, and hemp. Where these conditions do not exist, the standard of living of the cultivators is such as would not be tolerated in this country. This is probably the reason why small holdings, except under very favourable circumstances, have not been very successful in England.

The submarine menace during the war years certainly roused the nation to a sense of the danger of relying almost entirely on imports of foreign food; and the experience of those years seems to suggest that a more profitable use can be made of the land than is the case at present. Since the Peace, efforts have been made to improve the amenities of village life to counter the attractions of the towns, and a comprehensive scheme of land settlement is the main plank in the Liberal Party Programme. Prophecy is always dangerous, but it seems improbable that a new agricultural revolution will be effected without some form of land nationalisation, or at least a very considerable measure of State aid.

CHAPTER VI

ECONOMIC EFFECT OF THE GREAT WAR WITH FRANCE

1. The Position of Political History

It will be noticed during the course of our survey that Political History has been hardly mentioned. The reason is that this is one only of the many factors which influence economic life, and not by any means the most important. Many kings, *e.g.* Henry III., reigned for a long period with little apparent result on the inner life of the people; where governmental intervention took place in the Middle Ages it generally tended to confirm existing laws or to aid a change already in progress. Even powerful kings and governments cannot work permanently against the signs of the times or the will of the people. Again, many of the wars of the Middle Ages affected the people at large only in so far as they were related to the actual combatants; the Wars of the Roses were almost confined to the great barons and their immediate followers.

However, some political changes did have large effects on economic structure; such phenomena have happened in the recent past and may again occur. In exceptional cases the whole life of the people is altered. Yet it may be questioned whether such large effects are permanent. Of the importance of the results of the French Revolution there can be little doubt, and some of these effects have left their mark to this day; yet the French nation is not totally unlike that of a hundred and fifty years ago, and many economic factors have hardly altered.

2. The Effect of Political Change

The effects of a great political change may work in two ways. First, there may be a sudden alteration which moves the life of the people away from its normal position; when the external stimulus is removed, forces will be at work, tending to make the nation resume its original state. If distress during a war is widespread and peace is not too long delayed, it will often happen that habits of industry, coupled with an abeyance of luxurious habits, will bring back the nation to its old position. After the Franco-German war of 1870 the Germans pursued the policy of crushing her neighbour, so that fear of further attack could be indefinitely postponed. Yet the habits of industry and frugality of the French worked wonders; in a surprisingly short time the indemnity had been paid off, while the seizure of Alsace-Lorraine called forth forces tending to prolong the quarrel.

The same thing may happen when a drastic law is passed to deal with a serious social evil. Many such evils lie on the surface, and it seems easy to destroy them at a stroke. Yet it may be that the remedy, if carelessly and quickly applied, may call forth forces which will intensify the original evil. Poverty seems an easy thing to remedy; if, however, it is treated by the direct methods of doles or charity, then the self-reliance of the recipient may be sapped and he will be poorer than ever, as he will not work for himself. If wages are low, it seems easy to suppose that if they are raised compulsorily all will be well, but the question is really far more difficult, *e.g.* prices will also be raised, so that wages will not buy so much as formerly.

The second sort of effect which may follow a political change is more permanent. It may be that in a nation there are forces, striving towards expression, which are economically beneficial, and which would become of importance if certain impeding obstacles were removed. A

stationary society, as we have abundantly seen, tends to build up barriers round itself, so that it is nearly impervious to new ideas and forces. The old forms have served their purpose in the past, but now are worshipped as a fetish. Hence if they are forcibly destroyed, it will be against reason and common sense to replace them, as the reason of their existence was that they had grown naturally from past times, while now the continuity would be broken. Thus society will move on new lines, and continuous progress will take place. At the French Revolution a race of peasant proprietors was created. The small holding system was found to suit exactly the genius of the French peasant, so that now it has become thoroughly acclimatised.

3. The Colonies

In the eighteenth century foreign trade had become important, and was an object of political attention. Hence colonies were of the first importance. Emigration was sometimes encouraged, while sometimes it was caused by persecution, and in some cases expulsion (*e.g.* the Huguenots) occurred. If the emigrants took possession of an uncivilised country, it was held to be the property of the nation to which they belonged. Much of the earlier colonisation was pure piracy, and the adventurers were openly discouraged, though the Government took advantage of their successes. English colonisation dates from the seventeenth century. In those times Ireland was treated as a foreign country, and there were attempts at "Plantation," only successful in the case of Ulster.

This method was often used in regard to new countries; later the settlements might be used as penal colonies, *e.g.* Botany Bay. This illustrates the feeling in the mother countries; the colonies were looked on with some contempt as outposts deriving their whole importance from the home connection. If a settlement reached the stage at

which it was worth while for this country to assert its rights, then the expense of protecting the colony began to be a drain on the people at home. Sometimes colonisation was carried on by a trading company which generally had a large independence; *e.g.* the East India Company had an army of its own. These cases, however, were exceptional; often, also, the great expense of original plantation of colonists had to be added.

It was natural, then, for the mother country to try to obtain a return for the trouble and expense incurred, especially as the colony became more important. Added to this there was great ignorance prevailing at home, and hence arose the probability of friction. When the colony was in the infant stage, protection by the mother country was essential, while the most profitable and the safest trade would be with the latter. Hence in this stage arbitrary and selfish conduct on the part of the mother country did relatively little harm.

As the colony grew, the colonists no longer looked on themselves as exiled Englishmen, but began to develop a common feeling. It was now unfair on the part of the mother country to force her will on the colonists. The protection granted was largely past history.

4. Trade Restriction

The most important and most irritating pressure exerted was the restriction of freedom of trade. Colonies were generally settled because they contained important natural products, and the richness of the region was kept steadily in view by the home country, which thought itself to have a permanent claim on those products. We have noted that the difficulty of a manufacturer is to obtain a market for the goods he can produce with greater and greater ease. The colonists supplied the deficiency, and could send goods in return.

Thus most colonising countries have tried to monopolise

the products of their settlements. Spain and Portugal accumulated gold until all products sold at fabulous prices. The Dutch, holding the Spice Islands, could make immense profits on goods so essential in the days when salt meat was the only food available in winter. All countries tried also to obtain a monopoly for their own products, and the keen rivalry which proceeded from the competition of the manufacturing countries was perhaps the most fertile of all causes of disputes.

In the early days of a colony England, transacting all business, naturally controlled taxation. This was the weapon used later for the control of trade. Foreign commodities were often refused admission or made to pay duty, while colonial exports were similarly controlled. Merchants, of all men, are cosmopolitan, and in spite of a natural preference for the home country, which possessed the ties of language, sentiment, and particularly habit, they would wish to trade with other countries if such trade was profitable. If the gain was very great, smuggling of a serious nature was the inevitable result.

There was still among the colonists a feeling that they were somewhat inferior and subservient to England, and if the pressure was not too great the irritation did not lead to action. England's greatest mistake lay in supposing that she could push her claims to actual taxation for her own benefit, on the strength of services rendered a long time past. The colonies could no longer be treated as children.

5. North America

As the North American Colonies grew in importance, the West Indies became jealous, and wished to limit the trade of their northern neighbour; in particular they wished to have a monopoly of the sugar traffic.

England took the part of the West Indies and this produced a bad impression on the already dissatisfied

North American Colonists. The American colonies on the Atlantic slope followed the course described above; the Stamp Act of 1765, which meant new taxation, brought matters to a head, and when in 1773 the Boston people threw overboard the cargoes of tea which England tried to force on them, war became inevitable. England suffered for her stupidity and lack of sympathy, though the friction might have had more serious results if developments had come later, when population was greater and not so exclusively English. The colonists obtained their independence in 1782.

At this time the Canadian provinces were of smaller importance. They were originally French, and had been conquered during the Seven Years' War. England and Prussia possessed a common interest in that they were the most progressive nations, while Prussia was hated throughout the Continent; England's jealousy of France was another reason for her alliance. The war lasted from 1756-1763 and was carried on in four continents. It was mainly a fight for territory, but the mainspring of the greed for conquest was that each country envied the rich possessions of its enemies; the war was mainly waged for economic reasons.

As a result colonies changed hands, while fresh colonisation was stimulated. France turned her attention chiefly to Europe, and England took advantage of this by gradually conquering Canada. The capture of Quebec in 1759 by Wolfe was decisive, and soon the French armies were expelled. Since then colonisation of British North America has steadily proceeded; only Alaska in the Northern part of the continent has fallen into other hands.

At the same time England obtained supremacy at sea. In India, Clive's victory at Plassey in 1757 opened the way to the conquest of Bengal, while Southern India was also gradually conquered and the French expelled. After many vicissitudes the war ended in victory for England and

Prussia; while the latter obtained European supremacy, this country laid the foundation of its colonies.

6. Pitt and George III.

The history of this time, when wars were not in progress, generally deals with the government of the country, and the rise and fall of ministries are considered all-important. Pitt is a great name in this period. He, in common with George III., had resolved to curb the power of the old landed aristocracy. The new moneyed element just appearing had made this possible, and the industrial Revolution made some change in political structure a necessity sooner or later. If Pitt and the King had worked together they would have formed a powerful combination. The former, however, was an enlightened administrator far in advance of his time, and he wished to put the ideas of Adam Smith into practical effect.

The King was obstinate and narrow-minded, well-meaning, but possessing a mind of the most limited range. George III. is an example of a sovereign who did incalculable harm through his capacity for interference where a more selfish and cautious ruler would have avoided mistakes. Pitt, if left alone, would have guided the country at this critical period of its economic history, if not safely, yet better than most of his contemporaries; what actually occurred was a period of acute misery because George III. was not the fit administrator for those changing times.

Pitt did make an important step forward. One of the first commercial treaties was an important one with Portugal, when it became a matter of patriotism to drink port wine because it meant the entry of our goods into that country. In 1750 a treaty with Spain followed. In 1786 Pitt carried through a commercial treaty with France, our hereditary enemy, and at the same time the lot of Ireland was relieved, her imports being allowed to enter more

easily. Hardware and linen were sent to France under freer conditions, and we in return lowered our duties on wine and brandy. As we were still under treaty obligations with Portugal, we had to lower our tariff on Portuguese wines, as the stipulation was that their duties should be less than those of the most favoured nation.

7. The French Revolution

The most important event in the eighteenth century was the French Revolution. At first it was treated with sympathy in this country. Men like Wordsworth openly gave their support, but the tide turned. In this country there were the materials for a Revolution of the same kind. There was a miserable proletariat, a callous aristocracy; in addition there was a new, a more cruel and a more powerful set of tyrants—the new manufacturers, though the cruelty of these was not so direct as that of the worst French nobles. Political power was mainly in the hands of the old aristocracy, broken by periods of Whig ascendancy, when their even richer rivals held the field. Yet there was no serious trouble.

Discontent there was in plenty, but it was stifled. When the excesses of Robespierre and his fellows were realised the name of revolutionary was abhorred. The effect was intensified by the natural hatred of France and all its works. Reform, however just, necessary, or mild, was held in suspicion. Reaction was supreme, partly because the opinion of the country was against change, and partly because of the fear that if reforms were granted and the lower classes obtained better conditions, the way would be opened to a revolution in this country. The King of course was against progress, while Pitt was displeased with the revolutionary excesses.

Hence the immediate effect of the French Revolution in England was to prevent natural economic reforms, which otherwise would probably have been realised, from taking

place. The lower classes, who might gradually have risen to the position for which they were fitted, were kept in a state of political and economic (though not legal) subjection, which in some ways was as bad as in the old days of villeinage. Those reforming spirits in the upper classes who might have done something to alleviate the existing distresses had their hands tied by the awful example across the Channel. Bonaparte brought a more efficient administration, but he stood for rapid progress. England was, in a word, anti-Napoleon, and the same methods were applied as in Europe by Metternich after the peace of 1815.

In England the richer classes increased their economic power by political means. England was passing through a phase during which material power and material objects were worshipped. The presence of manufacturers who had suddenly grown rich and who had squandered their money in luxury had an unpleasant effect on the population as a whole. Bribery and corruption were rampant; places and pensions were not given according to worth, flattery and absence of independence were the things needful. Hence it was easy for a rich man so to use his wealth as to obtain the political power he desired; seats in Parliament were bought and sold with no sense of shame. Men who obtained power in such fashion might be expected to use it to further their own interests, and such was the case.

8. The Great War, 1793-1815

The short-lived friendly understanding with France ceased when there broke out in 1793 a great war which lasted with minor interruptions till 1815. At first our struggle was with the Revolutionary leaders, but gradually, as Napoleon increased in power, it became a fight against France, largely on economic grounds, and at times developed almost into a struggle for existence. Like the Seven Years' War, it was carried on in all parts of the world, and though England was repeatedly threatened, it

was never actually invaded. A striking feature of this great war is that economic methods of fighting were resorted to.

The hatred of Napoleon for England was two-fold. First, we were the nation who had systematically opposed him and his works and had helped his enemies on the Continent with men and money. We formed the chief obstacle to his project of subduing Europe. Next, he hated England because it was rich and powerful. Though he branded the English as a nation of shopkeepers, yet he recognised that it was precisely because we were such that we were able to make such an effective opposition. Hence he wished to deal England a mortal blow in her most vulnerable part. This is the explanation of the unpopular measures he took to limit our trade. It is important to remember that he applied great pressure on his subject peoples to do his will; the armies and navies of Continental States were tools in his hands against us.

France had mastered Holland, and the latter country was forced to take up arms against us. As a result Dutch colonies became lawful prizes. The Cape of Good Hope was captured in 1795, but was given up at the peace of 1803. Three years later, when war again broke out, England again conquered it, this time keeping it permanently; settlement proceeded, and later struggles were against the natives until serious troubles arose with the Boers at the end of the nineteenth century. Ceylon was also partially taken from the Dutch in 1795; in 1802 it was wholly taken over, the Dutch receiving Java in exchange. Both the Cape and Ceylon were of the greatest economic value to England, not only as regards actual productions, but because they were strategic points enabling us to protect our mercantile marine.

9. The Early Effect of the War

The early effect of the war was very complex. Certain classes, of course, benefited greatly; compare the army

contractors of to-day. Again, the new subjects of Napoleon had to fight for him, and they automatically became our enemies. This meant that we could strike them through their commerce, just as Drake and his fellows had robbed the Spanish galleons in the time of Elizabeth. The prizes thus gained were often of great value, and our merchants took advantage of their position. The colonies which had been taken also supplied new products, while the success of our ships at sea made commerce cheaper, because safer.

Yet England gained what other countries lost; this effect could not continue indefinitely, and considering Europe as a whole there was serious loss. The beneficial effect of the new conditions to certain merchants caused these to speculate, but no further stimulus to their trade was forthcoming. The continuance of the war, then, neutralised the effect of the earlier English gains and caused a loss which communicated itself to every country.

The Peace of Amiens (1802) was thus welcome. Merchants, however, were lured into a false sense of security. They extended their actions, and as trade suddenly became more profitable they borrowed money and speculated heavily. This of itself would have caused an inevitable reaction; the renewal of the war in 1803 intensified the natural effect. Trade suddenly ceased; merchants could not have fulfilled their obligations in ordinary times; their extended transactions caused their ruin. Again, a new stimulus arose; those merchants who were left had to face lessened competition, while new naval victories made our commerce more safe again. The traders who could take advantage of new conditions prospered, building up a trade partly depending on the continuance of the war and so far unsound, but partly on a solid foundation.

10. The Berlin Decree: Orders in Council

England again became a country of rich men and again became self-reliant, independent, and somewhat aggressive.

Napoleon instinctively saw that he could not conquer the country by ordinary means, and yet its growing wealth rendered its subjugation necessary. Hence in 1806 he promulgated the well-known Berlin Decree, which opened a new chapter in methods of warfare. He declared the British Isles to be in a state of blockade; no British goods were allowed to be imported to any place where his power extended. Neutral ships which had touched at a British port were similarly excluded. English merchandise was confiscated, and Englishmen who were found in countries under French influence were treated as prisoners of war.

The Decree struck England at its vulnerable part, and was meant as a special measure. England had not the same reason to attack France in such a way, and the results of such a policy on our part, however annoying and damaging could not be of great military importance. England's answer was thus largely retaliatory. By the Orders in Council of 1807, all vessels of whatever country which traded with France were seized; if any such ships sailed from a hostile port they had first to touch at a British port to pay customs duties.

11. The Milan Decree: the Continental System

In the same year Napoleon retaliated by his Milan Decree. Neutrals were not allowed to trade in any products brought from any part of the British dominions. Any neutral vessel which submitted to the English right of search was held by the French to be a lawful prize.

The effect of these economic weapons was very great. Smuggling of course was enormously increased and goods did reach the countries concerned, though the result was that prices were immensely increased, the excess passing into the pockets of merchants who had taken the risks. Napoleon himself on one occasion was obliged to clothe his soldiers with smuggled English wool. This is an example of a widespread economic law, that where a

government or other external agency attempts to interfere with natural phenomena forces are set up which tend to defeat the intention of the external power, and to reproduce the original effects with a loss of efficiency. The sumptuary laws of Edward III. and some of his successors were evaded, and the effect of governmental regulation was to increase the cost of the articles affected.

The blockade, then, was only partially successful, and on the whole probably worked more harm than good to the two countries affected; in fact, Napoleon's attempts to crush England had in the long run the effect of calling out forces which helped his enemy against himself. His "Continental System," in addition to its weakness, had two gaps, in the Baltic and in Portugal respectively, and he made it his business to crush the offending countries. Yet the wider his system extended, the more difficult was it to enforce, as the French Navy, enfeebled by encounters with the English, could not effectively watch such an extent of coast line. The French Army came to consist largely of coastguardsmen.

12. The Opportunity of Neutrals

The unforeseen effect was that the trade of the two countries largely passed into the hands of neutrals. These, however, were in continual fear of confiscation, as obedience to an order meant disobedience to a decree. As the trade was illicit and risky, the tyrants who had caused the trouble were hated. More serious for Napoleon than the fact of the friction with European countries was its special nature; he now irritated the common people. The Revolution had at first stood for liberty, fraternity, and equality, and had called for sympathy among the common people in England and most Continental nations. Again, Napoleon was one of the greatest administrators the world has seen, and where he ruled obsolete governmental machinery was thrown down, and economic reforms, new and startling

but yet successful and based on sound principles, were instituted. He made roads over the Alps and carried economic changes concerning property and inheritance into many subject countries; the Code Napoléon is one of the greatest codes of law in the world. Hence where the French became masters the common people exchanged a petty but grinding tyranny and economic subjection for relative freedom; however great the pressure was in certain directions, Napoleon's aim was to make war not on peoples, but on princes and privilege.

13. Continental Resentment

But Napoleon had made one fatal mistake. The Continental System, in that it obstructed English goods all over the world, meant that either such necessaries or little luxuries were quite withheld from the common people or that the prices were greatly raised. Hence the result was a popular ill-feeling against Bonaparte. Hitherto Napoleon's enemies had fought without spirit, as they felt they had little to gain; now they saw that their new tyrant might be worse than the old, and popular risings resulted, the first of which in Spain led to the Peninsular War, the first war in which the French suffered serious losses on land.

Resentment was great also against the English, and we acted undoubtedly in a high-handed fashion, while our seizure of the Danish fleet when nominally at peace cannot be fully excused by the fact that we merely forestalled Napoleon, who would have done the same thing later. Yet it was recognised that we were not on the offensive against the Continental countries, and our serious trouble was with America (1812).

At the beginning of the war Russia was the country least unfriendly to England, but even she originated a new idea of the policy which should govern neutrals, and of this England did not approve. Russia refused to accept a blockade as binding which was not effective; it claimed the

right to trade with France in goods which were not contraband, and which yet might be of great assistance to the enemy, *e.g.* masts from the Northern regions. Other countries followed Russia's lead, especially in Scandinavia. America gained largely. Privateers were fitted out, and, sailing under a neutral flag, often committed depredations on English commerce.

14. Monetary Troubles

One important effect of the war may now be noted. Over-trading before its commencement brought the inevitable reaction. In 1793 a monetary crisis appeared. When the war began England did not at first take much part in Europe, but contented herself with sending large sums of money to her Continental allies. This led to a drain of gold from the country; a panic ensued, and merchants could not find money to pay their debts. This led to the suspension of cash payments at the Bank of England in 1797. In that year, owing to the abnormal political situation, the Government authorised the Bank to suspend payment of its notes in cash, and by agreeing to accept them for all payments, practically made them legal tender. This Act, which was a temporary measure, was revised periodically until after the war, and from 1797-1821 Great Britain had a paper pound. Gold coins quickly disappeared from circulation, for the other banks followed the example set by the Bank of England, and in 1812 the notes were made legal tender from year to year.

This was a necessary procedure, because as early as 1809 a difference appeared between the value of the notes, and that of the gold they were supposed to represent. Owing to a large increase in the Bank's issue of notes, the foreign exchanges turned against us and gold rose greatly in value. Ricardo then issued his pamphlet, *The High Price of Bullion, A Proof of the Depreciation of Bank Notes*, which caused the appointment of the Bullion Committee of the House

of Commons in 1810. The Committee adopted Ricardo's argument and recommended a gradual resumption of cash payments, but nothing was done until 1819 when Parliament ordered the return to cash payments, giving the Bank four years in which to make the necessary arrangements. The monetary situation, however, improved so rapidly that the Bank was able to return to gold in 1821. It should also be noticed that England adopted the Gold Standard in 1816, and allowed free trade in bullion and coin in 1819.

The speedy resumption was not without its disadvantages. The process of re-adjustment was violent and damaging to trade for debtors were hit severely by the fall in prices.

The enormous difficulty of estimating the economic effect of the Revolutionary Wars will be apparent. Each outbreak caused a temporary advance in one department of industry, partly at the expense of others, and a corresponding depression generally occurred, while the next peace repeated the same effects in different ways. The " unhealthy stimulus to English tillage " (Cunningham), a result of the continuance of the war, was followed by the equally unhealthy stimulus to American trade after the Peace of Amiens. Hence it is a task of extreme difficulty to estimate what progress was solid and what was built on over-confidence or temporary extraordinary conditions. Further, the very changes worked their effect on economic life, and their effect was generally disturbing. All was uncertain, and steady hard work in one particular line did not meet with its due reward. Hence this was the golden opportunity for the speculator and the gambler. Such fortunes as were made, and some were large, were the result of chance opportunities. Yet it was just the unsuccessful gambler who lost most heavily when an unexpected change took place.

The case is difficult also because England was in the middle of the most rapid economic changes in her history.

Hence the difficulty is to abstract the changes resulting from the war from those which would in any case have occurred as a result of the Industrial Revolution. Again, the changes due to the Industrial Revolution were sometimes of the same kind and in the same direction as those caused by the war; here again we must move cautiously.

Progress in manufacture had the result of raising wages, at least temporarily, and as it happened, this caused a great increase of population and a change in its distribution through the country. This caused certain grave social evils, though advantages also accrued. Here it is difficult exactly to estimate the evil economic results of the war.

Most important, it is almost impossible to estimate how much of the distress or the progress caused by the war was permanent. We judge that most of the effects were merely temporary, but many must have left a legacy of misfortune behind them, while many of the results of the Industrial Revolution were of short duration. We must, then, do what we can, but must reserve a final judgment, appreciating the difficulties present when important causes work side by side.

In the war years a rapid growth of population took place, chiefly in the north. In the industrial districts the effect was a consequence partly of accelerated natural increase resulting on higher wages, and partly of actual migration from the south. Prices fluctuated, wages rose nearly as high above the normal level as general prices did, but not as much as corn prices. Yet, on the whole, the most prosperous war years we may suppose to have been more satisfactory as regards industry than the best years before the war, though the least prosperous years of war were much worse than any of the peace years.

15. England's Advantages—Permanent and Temporary

To take the last mentioned effects first, the stimulus to certain branches of the trade has already been noticed.

Another insecure advantage was that the attempts of England to drive its French and Dutch rivals off the seas was extremely successful. At the end of the war it might almost be said that there was not a merchant-ship on the Atlantic belonging to England's declared enemies.

Napoleon had thought that England was at his mercy, and ready to succumb when attacked by economic weapons; otherwise he would hardly have ventured on the Milan Decree. He made the mistake of overlooking one permanent advantage in the shape of coal. Even though our commerce was crippled, no other country could have supplied the demand for the new machinery-made goods; only by the use of coal could they be made in sufficient quantity. Hence we could produce these permanently at a lower price than our neighbours, and it must be again noted that manufactures generally obey the Law of Increasing Return. Every English port could send out the goods into a large expanse of sea, and some products reached their destination.

On the whole our conclusion must be that widespread prosperity, when it existed, occurred in spite of the war.

16. Depression: Fluctuations

Depression or actual misery can largely be explained by the natural transition from one species of economic structure to another. The introduction of machines and the dependence on trade conditions, causing fluctuations in employment, although they now served as channels through which the effect of the great war could act, yet would have taken place in times of peace. Before the war the changes had worked ill effects in many directions. Hence it is not sufficient to make a study of conditions during war and peace respectively, and say that the differences were caused by war conditions, because at the same time industry of itself was varying.

We must say, then, that the war could cause both

temporary and local prosperity and widespread depression, but that purely economic causes were also working in the same direction.

Fluctuations of general prices are caused, as a rule, either by industrial changes or by changes in the amount of money in the country. The latter effect has been mentioned above, and we may say that serious stringency of the money market was a result of the war. Again, the necessity of smuggling enormously raised prices, which would be lowered in peace intervals, while uncertainty of trade again would raise prices. As manufacturers were on the whole progressing, they would be in want of labour. The mill hands, seeing prices raised, demanded higher wages, and could obtain them, so that their position was not made worse, while manufacturers could afford to make the sacrifice. Again, however, we must say that this same rise of prices in time of prosperity would have occurred in time of peace, while over-trading would have caused a subsequent fall.

On the whole the fluctuations in general prices and in wages may be put to the account of the war.

The case of wheat must be separately considered. In any case, as manufacture progressed faster than population, much labour must have been attracted from the land, with a consequent lessening in supply of agricultural labour, a rise of wages, and therefore an increase in corn prices. Now, however, when England's supply of her staple food was interfered with, a growing population applied a greater pressure on the corn supply, so that this was the opportunity of the landlords, who raised rents enormously. Wheat prices rose far more than wages.

This effect must nearly all be attributed to the war.

For the increase in population and its change in distribution the war cannot be held responsible at all. These were purely economic effects, depending in the long run almost solely on the distribution of mineral wealth.

17. Economic Warfare

A word must be added on the Napoleonic experiment of warfare by economic methods. The results show it to have been a failure. Each side reached its aim of crippling the trade of its adversary in some measure, but the secondary effects were so important that the military advantage gained was negligible. Though wars generally, at bottom, spring from commercial causes, when begun they must be fought out by military methods.

The three weaknesses of economic warfare, whether as an aid to fighting or whether carried on by tariffs in time of peace, are:—firstly, the damage done to the enemy is out of all proportion to the advantage gained, and needless irritation results; secondly, neutrals are nearly always affected, some to their hurt; thirdly, the objects aimed at are never effectively carried out—it would be very difficult to blockade England. The submarine warfare in the late War (1914-18) was a more serious matter than blockades of former times, but was still subordinate to the main fighting.

18. The Cause of the Fluctuating Conditions

In 1815 England had so adapted itself to war, or at least fluctuating conditions, that the economic organism had been changed. Hence a sudden return to a healthy state caused great distress in certain ways. That part of the country's industry which had depended on the continuance of war was seriously affected; and many merchants and manufacturers were ruined, though on the whole they suffered less than the farmers. Those manufacturers who produced necessaries found that their market was lost now that there was no longer any fear of the enemy. It is a hard matter to build up a trade connection; and when this is broken the tedious process must again be begun. Some of the trade which had fallen into American hands was permanently lost to us. The necessary

commercial revival could not take place until the regular trade routes were re-established. Other countries, again, were now free to compete with us without hindrance.

It must not be supposed that peace meant a retrogression. When trade was again healthy our mercantile communication progressed rapidly. A more unfortunate case was agriculture. During the war, when the supply of foreign corn was almost non-existent, the landowners had their chance, and took it. Land was tilled which under normal conditions should have been left to pasture. As the European wheat came in the artificially raised prices had to be lowered, and farmers could no longer pay the old excessive rents. Hence landlord and tenants were alike ruined, the former because he could not obtain the rents on which he had counted for a decade, and the latter because of the lowered normal price of corn. The labourers shared in the depression, and their wages were brought down to the lowest subsistence level. The effects were intensified by a bad year. The subsequent scarcity of corn certainly raised prices, in spite of competition, but that by no means compensated the loss in yield.

The unfavourable sudden effects of the peace were not confined to England. If one country prospers, all countries trading with it shares its prosperity in a less degree, and vice versa. If two countries are depressed together, the effect in either country is intensified by the loss in trade with the other, also impoverished. At this time every country in Europe had been severely affected by the war, and England had perhaps escaped most easily; in all the peace brought some dislocation. This, then, was another factor which caused the cessation of war to be unfavourable in certain special directions.

19. The Nineteenth Century: Emigration

For the rest of the nineteenth century politics exerted less real influence on economic welfare. The one European

War, that in the Crimea, had less effect on commerce or industry than the great war, and fighting in other parts of the world naturally had less effect than if it had been nearer home. The wealth of the diamond fields of South Africa led to the first Boer War, the Jameson Raid, and the final conquest of the Transvaal. Colonies are looked on no longer as dependents, but as communities having an independent life, and we have even allowed them to put duties on our goods. The larger colonies are treated almost as equals, and the advantage we derive from them is largely that sentiment has caused much trade to be retained; trade " follows the flag," at least for a time.

In 1803 Selkirk advised and forwarded emigration, as did the Canada Company. The greatest apostle was Wakefield. He was impressed by the ideas of Malthus, who maintained that population tended to become superabundant. The former saw that every settler in a new country would help to develop a virgin region; that labour and perhaps capital would be carried to a place where the two would be immensely more valuable than in England. He held also that emigration would relieve the pressure at home. Many enthusiastically followed his views, and the policy of indifference to the fate of the colonies which had followed on colonial suppression (a result partly of American independence and partly of the spread of *laissez-faire* and cosmopolitan ideas) began to decline.

CHAPTER VII

THE CONDITION OF THE WORKING CLASSES

1. Comparison of Different Ages

Progress is a term of which the meaning is indefinite and capable of many interpretations; so the condition of a people at any time is equally hard to discern. The greatest minds in the days of Roman and Greek supremacy have been thought to be at least equal to those of modern times, and though this may be an exaggeration, there is much truth in the point of view presented. Yet we have morally progressed, for Roman civilisation was built up on slave labour.

In the Middle Ages, in Europe, the lower classes had achieved some freedom, while rich and poor were connected by a few intermediate stages, as the best of the villeins obtained freedom and wealth increased in the towns. Still, it needed a large domain to make a single rich landowner; though education and culture was not confined to the selected few, it had not permeated the lower classes. To-day in England, while the aristocracy has not enormously improved, the nation as a whole is better from the point of view of culture and material prosperity than at any preceding time, and it is at least arguable that grinding poverty has proportionately lessened.

Ordinary opinion holds that material progress is measured by increase in wealth per head of population, and it is the more tempting to use this criterion as it is the most convenient and most easily observed. Any factors which cause an increase of production are thus held to be beneficial. A close study would show us that almost all sudden progress has been accompanied by dissatisfaction, generally among the lower classes, and a sympathetic enquiry teaches

us that progress for them has been illusory. Hence we must consider not only the actual wealth but its distribution.

The articulate portion of the Roman civilisation was free, and hence the views expressed at the time are coloured, not so much with class selfishness, as an inability to comprehend the needs of the slave population at all. As the lower classes gradually improved, the same result followed from class selfishness, and even to-day this exists everywhere. The doctrines of equality preached by Rousseau taught that these classes then formed an essential part of the community.

2. The Importance of the Working Classes

To-day, as practically always before, the poor population forms a majority of the whole; and a middle class has arisen, essentially not aristocratic. Now this lower class possesses freedom and a sense of its own importance, and the result is that it obtains at least its due share of attention. These considerations should prevent us from attaching too much importance to an increase of individual great fortunes.

Progress, then, is best measured by the condition of the working classes; the aristocracy varies less from age to age. Broadly speaking, we may say that for two or three centuries after the Conquest the lower classes were not unhappy, and many speak of the fourteenth century as the Golden Age. Their position deteriorated until the Civil War and then gradually improved until the Industrial Revolution, when there was great distress; progress in the last century has been fairly constant in direction.

Of the distress caused by the industrial changes of the eighteenth century there can be no doubt. We can summarise the effects by saying that the yeoman was largely extinguished, and that small tenants either lost their lands or became labourers. In industry, the hand spinners and weavers were ruined, slowly in the woollen trade but surely, and workers became units in a large

factory. The essence of the change was the loss of independence and individuality. Hence the result was a proletariat, depending on capital, and supplying the element of fluidity necessary if industry is to be carried on in the most profitable places.

3. The Proletariat

What a fully-developed proletariat really means may be surmised from the following passage condensed from a well-known authority[1]:—" First, there appears the important fact that the proletarian is a typical representative of that kind of man who no longer is in relation (either internal or external) to Nature. The proletarian does not realise the meaning of the movement of the clouds in the sky; he no longer understands the voice of the storm. He has no fatherland, rather he has no home in which he takes root. Can he feel at home in the dreary main streets, four stories high? He changes his dwelling often either because he dislikes his landlord or because he changes his place of work. As he moves from room to room, so he goes from city to city, from land to land, wherever opportunity (*i.e.* capitalism) calls. Homeless, restless, he moves over the earth; he loses the sense of local colour; his home is the world. He has lost the call of Nature, and he has assimilated materialism.

" It is a phenomenon of to-day that the great mass of the population has nothing to call its own. In earlier times the poorest had a piece of land, a cottage, a few animals to call his own; a trifle on which, however, he could set his whole heart. To-day a handcart carries all his possessions when a proletarian moves. A few old scraps are all by which his individual existence is to be known.

" All community feeling is destroyed by the iron foot of capitalism. The village life is gone; the proletarian has no social home; the separate family disappears."

[1] Werner Sombart: *Das Proletariat.*

This state of things holds to-day in some Continental cities, and in the slums of our big towns. It is not suggested that it was caused at once by the Industrial Revolution, but the two essentials, the loss of contact with natural life and the unnatural mobility, first originated then. Before about 1760 most of the small weavers possessed a cottage with a piece of land, and in addition grazing rights on the commons or the waste. Thus they were little affected by fluctuations in trade, so that their gains, though never large, were sufficient and reasonably steady. The weaver lived as a rule outside the town, and was able to combine the advantages of city life with a natural and healthy existence. His neighbours were men like himself, and all had a feeling for the community and a sense of local patriotism. The fact that a man called a piece of land his own not only made him work harder than he ever would do as a paid labourer, but also gave him an abiding interest in his district and in his work. (Cf. Arthur Young—"The magic of property turns sand into gold.") Hence conditions were such as not of necessity to starve the moral virtues.

Later the worker, if he gave up the hopeless struggle against capitalism, had to enter a large, unhealthy factory, which was not his own. As expensive machinery required large profits, many hands had to be employed. Means of transit were primitive, and thus workers were obliged to live very near their mills.

4. The New Towns

Population concentrated round factories; and for many reasons these latter crowded together. Hence towns rapidly grew larger. Rents were high in the new towns and houses were looked on merely as places of shelter. The one aim of employers and, later, of employed, was to earn the largest possible amount of money; production was everything, consumption and distribution nothing.

The new towns, which were very different even from the worst present-day cities, crushed the life of the people; incomers found that though they earned more money they had to sacrifice independence, and that some of the old advantages were not to be bought at any price. Again, the high wages themselves led to extravagance and ushered in a period of careless spending; the times were changed and the old habits of consumption could not be relied on, while under new conditions money was squandered on non-essentials. The people had not the wisdom or education to use their means properly. In short, society was dominated by a love of money for its own sake.

The housing and sanitary conditions were very bad. There were no building conditions and restrictions of any kind; houses were run up in any fashion, and on every available piece of ground. No regulations existed to prevent overcrowding, or the use of cellars for dwellings; and there was no system of main drainage or sanitation. An adequate supply of clean water was rarely to be met with before 1850, with the result that small-pox and fevers of all kinds were chronic. Bad as London was, the conditions in the northern towns, Manchester, Leeds, Bradford, etc., were worse. "More filth, worse physical suffering and moral disorder," said Chadwick in 1842, "are to be found amongst the cellar population of the working people of Liverpool, Manchester, or Leeds, than in the worst prisons visited by Howard." Edinburgh and Glasgow were in a similar condition.

5. The Mobility of Labour

If English industry was to advance, some sacrifice of this kind was essential; similarly, increased mobility of labour was a necessity. It is possible for an isolated agriculturist to become too narrow, and the use of travel has been long recognised. Again, though no State is healthy unless the great majority of its population is

fairly fixed, yet if workmen remain in one place industry will often suffer from a glut or a lack of labour. It is essential that workers shall move from the place in which they are getting low wages to one in which their position is improved, for the fact that the high wages are offered means that industry is in such a state that more labour is needed. It is not necessary for all the population to be mobile; a limit is reached when no more hands are wanted.

It was not so much that Englishmen suddenly developed a distaste for their homes, as that the driving force was necessity. A labourer was driven off his land by lack of work, a weaver by effective competition; any person who could quickly and easily learn new methods could obtain an increased income. There was no chance except in the towns, and when home ties were broken further movement was easy.

Yet much of the movement was voluntary, and more, increased mobility must have come even if there had been no Revolutions. The old Settlement Laws, which kept the labourers to their own parish, and the Statute of Apprentices, which regulated entry into every trade, were still nominally in force, but were mere survivals, and bound to become a dead letter should events turn against them. Now the old conditions were so hard, and the pay offered by the mill-owners so tempting that the old restraints were utterly destroyed. A manufacturer would as soon have an untrained boy as a master craftsman who had formerly been apprenticed; he cared little what part of the country his workmen came from. Masters and men were alike in their determination to make labour legally free.

The influence of individualism on the movement towards freedom of labour is self-evident. All restrictions against competition were denounced as in opposition with natural laws which to many people were practically identical with

Divine Laws. This was the motive behind the formal repeal of the Elizabethan labour laws, and up to a certain point, the removal of restrictions, framed to deal with conditions that had become obsolete by the nineteenth century, had beneficial results. Unfortunately, however, the individual labourer, and the manufacturer, were very unequal in economic power, and the social problems of the nineteenth century were created.

Even in the fifteenth century many of the journeymen had rebelled against the old system, for as trade expanded, and population increased, a journeyman could no longer look forward with certainty to a master's position in the gild. The monopoly of the gildsmen was bitterly resented, and industry began to grow up outside the towns.

This industry was carried on by a people who had little respect for outworn institutions and who generally possessed considerable energy, as they had to make their own way. Hence when new conditions appeared, the illicit craftsman and those who had little hope of improving their position would make full use of their new opportunities and would move from place to place. Here again the Industrial Revolution merely hastened an inevitable, if not altogether beneficial, change.

6. The Mechanical Nature of Industry

Just as the Industrial Revolution followed on the use of machinery driven by an external power, so most of the effects may be summed up as mechanical. First, goods became still more susceptible to being dealt with in large quantities. The day of production for known customers was past, at least for goods produced in quantity. Now, the worker did not know in what country, or perhaps continent, the goods he helped to make would be sold; and, again, each worker began to concentrate on one single stage in manufacture. Adam Smith had noted the advantage of this division of labour as it existed before 1760, and

gave many examples; but the introduction of machinery rendered it not only more possible but necessary. The worker lost the view of his industry as a whole; he lost interest in processes which did not concern him, and above all, he was personally accountable for little: responsibility of supervision was taken over by the entrepreneur.

The different articles which a worker made tended to be similar, and he himself could have little effect on their final form. Even at his own stage, the machine did most of the work and he was merely a directing agent. He performed much labour which was later taken over by machinery, and in the same way. Hence the worker took no pride in his work; his business was to earn money.

Selling methods became stereotyped. In former times a weaver had made cloth for a special customer and could please individual taste; each piece of work was done separately. Even in later times, middlemen had bought up the products of craftsmen on a small scale. Now the goods were gathered into a few hands, and individual characteristics vanished.

Above all, the worker himself became mechanical, and a type developed which has persisted to the present day. Freedom of labour and of movement did not mean real economic and social independence. The powerful pressure of social opinion and of mercantile laws diminished, but its place was taken by a tyranny which ground down the workers by the force of necessity. The work of the mill-hands was done at fixed times, in definite ways, and was such as provided little scope for intelligence. Hours were long, relaxation and study were not to be thought of. The homes of the workers were built on one pattern, and the old notion of a farmhouse, with its individual characteristics, disappeared.

Population becoming more concentrated, the little leisure time of the workers was spent in these dreary towns, and the effect was cumulative, as the children knew them

as their only environment. Movement was directed by artificial stimuli; particularly by the power of money, and everything was measured according to this sole standard. In short, the labourer felt himself moved by an external force (money) in just the same way as the raw materials and finished product of his master. He no longer knew how to live.

7. The Effect of the Treatment of Labour

The treatment of human beings as machines had serious results. Just as an enterprising undertaker (*entrepreneur*) would destroy machines making a good profit if it would pay him to buy a new invention increasing his income, so human labour was valued only according to its money value. There is unfortunately little doubt of the large amount of truth in the accusations levelled against employers then and at later times. Especially when the Revolutions had worked their effect and trade was brisk was labour in demand, and it is said that children were taken from workhouses and worked to death, when a new supply was forthcoming. When trade declined, a manufacturer had no compunction in dismissing his workmen.

As a result, employment was intermittent. In bad times the old weavers would suffer most, as boys could work the machines as well as they; in good times the workmen did not receive their full reward. But it might be that a weaver at his best would earn very good wages; this would lead him into extravagance, and he would contract habits which would be hard to break when the reaction came. Possession of unwonted wealth is to most men a great temptation, and the weavers had not the forethought nor self-control necessary to provide for bad times. Hence depression brought ruin in a sense unknown before in this country. A large proportion of the population lived up to their income and were obliged to follow its fluctuations.

8. The Loss of Stability

This effect partly depended on sudden increase of prosperity (at times), but the Industrial Revolution also brought a speculative instinct. As there was no longer a fixed market, manufacturers had partly to estimate future demands and partly to make their own market. When things had been going well, more goods were produced than could be sold; the market had been overstocked, and much of the produce was depreciated in value. The entrepreneur paid for his mistake, but then he could keep his stocks until the demand again increased, while the worker, dismissed on account of the master's lack of judgment, could not tide over the bad times. Again, over-speculation often led to a financial crisis which spelt ruin.

The old domestic weaver had the opportunity of obtaining the immaterial things which make life worth living. In addition, he was fixed to the soil, and looked on his weaving as a help towards obtaining his livelihood. Hence, if demand for cloth suddenly decreased, he was not left hopelessly without support; if it increased, his habits would lead him to expend his surplus profits on his piece of land. His livelihood, as his life, was fairly steady. Here again we must note that the middlemen had increased in importance before the Industrial Revolution, so that an element of uncertainty was introduced.

Attention has been concentrated on the bad side of the change after 1760, and this is because the increase of the wealth of the country tempts one to believe that all was well. But when the main abuses were removed, the way was made clear to a forward movement which, we think, has not yet ceased. To-day there is a larger working class than in 1760, and the members are individually richer.

9. Money and Real Wages

It must not be supposed that the lower classes obtained all the benefit to which the rise in prices entitled them.

This is a question of great general importance; it is usual when a period of great prosperity occurs, that as the demand for goods rises, their price also is raised, so that the workman finds that his progress is partly illusory. Hence a very rigid distinction must be made between money wages and real wages. The former are comparatively easily estimated, and can be expressed in a money value; it is easy to say that a certain man's wages are so many shillings a week but this may mean different things at different periods. One of the commonest pitfalls for the historian is to attempt to compare conditions at different times by money wages. Adam Smith and later economists realised the difficulty, and attempted to overcome it by setting up some other standard, such as corn or labour, but neither is sufficiently steady. What interests the workman is the amount of goods he receives for his wages.

This quantity we may call real wages. We must not estimate it in any single commodity, but in as many as possible, and we say then that real wages increase when more of the necessaries and commoner luxuries of life are obtainable. Even to-day it is hard to tell whether conditions are improving or the reverse, and in past times we are thrown back nearly completely on records of prices. Variation in wages gives us a rough measurement at different periods; to be more accurate, a careful estimation must be made of the amount which can be bought, using the known prices as basis.

10. Real Wages in the Nineteenth Century

A short summary may be given of the results thus obtained. At the turn of the century real wages were falling slightly, but rose from 1810 to 1830. For twenty years they were more or less stationary, and then rose, on the whole, for more than twenty years. After a stationary interval, they rose during the last twenty years of the century, then became stationary, and are now falling.

Sometimes a fall in real wages corresponded to a small actual rise in money wages, and vice versa.

A fall in real wages may come about in two ways. First, there may be an industrial depression, when trade is bad and little work is offered. Unemployment will be common, so that on the whole real wages will sink. The other case occurs when a general rise of prices has occurred, but wages have lagged behind, so that, though money wages have risen, real wages have fallen. In bad times prices of necessities will fall, because the demand for them has suddenly grown less, but the effect rarely counterbalances the first depression.

Wages rose after 1760, but prices rose faster. The misery increased, and by 1780 there seemed no way out. Many other factors existed: the Settlement Laws still oppressed the people, while on the other hand the old organisation which had kept society fairly stable broke up, and nothing remained in its place to protect the workers and legalise their position with regard to their masters. Though the old apprentice-laws curtailed independence, they safeguarded the position of those who had learnt their trade. The Corn Laws raised the price of the prime necessity of life; bread made of rye or barley was losing its hold and the dearer wheaten loaf was taking its place.

The country was full either of wars or rumours of wars, and the workers could not take advantage of changing conditions because of their lack of education. Last, but not least, a well-meaning but vicious Poor Law sapped the independence of the labouring classes, and the agricultural population reached a level of degradation from which it has not yet fully recovered. To this was added the shock of the Industrial Revolution.

11. The Misery of the Population

The misery of the population itself brought out forces which increased the degradation, so that even when some

disturbing elements were removed there was no considerable improvement. There was much discontent, though this, as usual, was most in evidence when matters began to improve.

The workmen attempted to combine but were prevented by those in power, and the one chance of improvement was lost, political power being in the hands of the masters. The condition of the country during the Great War has already been dealt with, and though trade alternately prospered and declined, the working classes bore the brunt of misfortune, while the masters retained the exceptional profits.

Corn Laws were passed and these naturally led to the passing of more Enclosure Acts. In 1815 even the landowners saw that something must be done for the labouring classes, and corn was allowed to enter when its price was 80s. a quarter. Since 1811 there had been trouble in the West Riding. Cotton was a cheap material and could be sold in large quantities in foreign lands; wool had a more or less fixed sale. Hence machinery would have here the effect of setting labour free rather than of increasing production. The woollen weavers did not so much object to minding machines as to the mastery over nature which machinery represented. Indeed, the first hand machines, which were labour-aiding, rather than labour-displacing, were welcomed in Yorkshire. Natural forces, however, provided power, and many weavers lost their work. This led to the Luddite riots.

The precise reaction of machinery on hand-workers requires examination. From 1760-1805 the position of the weavers and knitters, the classes of labour specially affected, had been steadily improving. During the next forty years, while other trades had their periods of fluctuations, the weavers and knitters were in a state of continual misery and degradation.

For this, there were several reasons. In London and the

south, trade suffered from the competition of the new industry in the north; in Lancashire and the West of Scotland, there was a stream of immigration of Irish labourers with a low standard of living; but the fundamental reason was the excessive competition resulting from the *laissez-faire* spirit. It was not foreign competition that forced down prices, but the reckless competition among English manufacturers on the home market.

Competition not only forced down prices, but it deteriorated the quality of the product, and this in turn adversely affected wages, because in the first half of the nineteenth century the cloth trade was incapable of unlimited expansion.

In this distress, machinery, during the transition period, was a factor. Before the power-loom came into general use, hand-loom weavers suffered a new competition from workers displaced by the introduction of machinery into spinning and other processes. These displaced workers not unnaturally turned to hand-loom weaving.

The effects of the power-loom were intensified by the reluctance of the weavers to enter the factory. Work in the factory meant a break in the old traditions of life against which the weavers struggled vainly for a generation. In the cloth weaving round Leeds, and in the lace industry of Nottingham, the transition was effected with less distress than elsewhere, because the machinery in these finishing processes required both strength and skill, and male adult labour was needed. But the worst hardship was felt in the cotton industry, where power was first applied, and in the Midland knitting districts. In Lancashire, native, Irish, and Scottish workers flocked into those branches of the cotton industry for which power machinery was in infancy, and the wages of the hand-loom weavers fell below subsistence point. In framework knitting the workers were confined to a single employment worked with obsolete apparatus, for which they had to pay a rack-rent

to the owners. The worst evils of the truck system flourished here.

The workmen have been blamed for their short-sightedness in opposing machinery, but they had much reason on their side. They were specialised to do a certain kind of work, and, if they had been apprenticed, had obtained an expensive trade-education. Possibly they had underestimated the power of the new machinery and hoped to destroy it finally. In many cases ruin was their portion if they were defeated in the competition, as employers preferred untrained boys to them. For the weavers it was a matter of life and death.

Machinery does not always result in an immediate increase in demand for labour. In the long run it does, and to a very great extent; in the short run, however, expansion is limited on the one side by the difficulty of obtaining raw material, and on the other, by the elasticity of the demand for the finished article. Again, the more the branches of an industry are specialised the more frequent are trade fluctuations. A break-down in one link may throw the whole chain out of action.

12. Opposition to Progress

It is quite true that, in pursuing their selfish and often heartless policy, the masters were making real progress, but it must not be forgotten that such improvement was made at the expense of those weavers who bore the brunt of the change. A good deal of the suffering could have been avoided had society been conceived as something more than a collection of abstract units. Economically, it is true that the ruin of the hand-weavers meant an enormous increase of wealth to the country at large, but still the change might have been accomplished more gradually and less painfully.

The rioters spared neither life nor property, as they were hungry, desperate men, in no humour to look forward to a

possible future millennium. Masters carried their lives in their hands, and the destruction of mills or machines was common. The trouble spread and became most severe in Nottingham, where Arkwright had his mills, and many riots occurred in the neighbouring counties of Derby and Leicester. Lancashire seems to have been affected least; the cotton industry absorbed continually more labour.

Naturally, this opposition could not stop progress. Some masters were intimidated, some remained, and some migrated, but machinery on the whole became increasingly important. The masters exerted their political power and the executive supported the mill-owners. The riots were treated as political offences, and no attempt was made to redress the real grievances of the men.

The term "Luddite" is derived from Ned Lud, a Leicestershire lunatic, who many years before seems to have broken stocking-frames.

Agitation led to political disturbance; Cobbett showed the workers that they were misgoverned. In 1819 acute distress in London led to riots, and mass meetings were addressed by agitators in provincial towns. The Government became alarmed. A great meeting was arranged in Manchester, undoubtedly legal, but the crowd was drilled for the purpose of keeping order, as the leaders declared. An attempt was made to arrest a leading agitator (Hunt), and when the crowd tried to protect him the soldiers fired on the mob. This "Peterloo" massacre was followed by mild reform.

George IV. was personally opposed to political reform, and the reign of William IV. opened in misery. This king, alarmed at the temper of the country, prevailed on the Lords to enfranchise the middle classes in 1832. This step had a beneficial economic effect, though progress was gradual. Chartism originated in 1838, but the financial crisis of 1847 brought it to a head in the next year, when it ceased to be a danger.

13. The Peace of 1815—and After

The economic effect of the peace of 1815 has been noted. Most of the working classes suffered, but the blow fell hardest on the agricultural labourers. Those yeomen who had survived enclosures were now nearly all ruined. The sudden bad effect of the resumption of cash payments in 1819 soon wore off, and a healthy currency led to an improvement in 1822, while the next year some of the Navigation Laws were repealed. Over-trading led to the crisis of 1825, and a depression lasted till 1832; two or three years later an agricultural revival followed on the Poor Law of 1834, aided by the reform of the Corn Laws and by the simultaneous development of manufactures. In 1844 the Rochdale Pioneers started the co-operative movement, which had been foreshadowed by Robert Owen, and two years later the Corn Laws were practically abolished. The expected progress was checked by the crisis of 1847, which disappointed the hopes of those who believed that Peel's Bank Act of 1844 would put an end to financial dislocation. In 1849 the last of the Navigation Acts disappeared.

14. Improvement after 1850

The year 1850 may be taken as an arbitrary dividing line. Up to this time progress had been fitful and slight, though real on the whole. After this date the country progressed more steadily and to a greater extent. Free trade enormously increased the aggregate wealth of the country between 1850 and 1890, and therefore probably the demand for labour. Whatever may be the case under the new conditions of the twentieth century, during the above-mentioned period that fact cannot be disputed. Of not less significance is the fact that free trade tended to greater stability. There were, of course, cyclical trade crises throughout the second half of the nineteenth century, but workers were much more regularly employed than

between 1790 and 1850. Free trade in wheat has smoothed away wide fluctuations in the price of bread, the primary necessity of the working population.

Even in trades in which there was no marked rise of wages, the length of the working day was gradually shortened, so that wages were more easily earned. These forces, more regular employment under better conditions, and a steady rise of real wages gradually improved the position of the labouring class.

The importance of free trade in wheat is difficult to over-estimate. In 1800 a bad harvest meant ruin among the working classes. The introduction of cold storage after 1870 cheapened other necessaries of life. After 1850 the rate of increase of population became less, so that the question of the superabundance of cheap labour was no longer pressing.

The existence of trades unions allowed the workers to fight the employers on more equal terms, for by means of their invested funds unionists have been able to hold up their labour for higher prices. The unions have functioned also as Friendly societies by means of which members could make some provision for sickness and old age. The Factory Acts, by ameliorating the condition of the worker, allowed him to turn out a greater product in less time, while the removal of legal restrictions gave him a new sense of independence and dignity.

Another factor was the rise of the great Co-operative Societies, which as we have noticed started with the Rochdale Pioneers' Store, founded in 1844, under the stimulation of the teaching of Robert Owen. These societies, like the trades unions, have taught the advantages of voluntary association and self-help, and by cheapening goods and by encouraging thrift, have exerted important reactions on the welfare of the working classes.

The spread of education, and opportunities for travel, together with the attainment of political power have

strengthened the hands of the masses. With the gradual extension of the franchise it has become impossible to ignore the just claims of the workers. Many of the worst evils of the Industrial Revolution were largely due to the fact that the workers had no voice in the legislative assembly of the nation. The landowners and manufacturers had. Once the franchise was extended, the effect of man's conquest over nature began to work its way downwards to all classes.

This improvement showed itself in many ways, and was most marked towards the end of the century. Strikes became less frequent, and peaceful persuasion took their place. The relations between employers and workmen certainly improved. The former connections between master and workman eulogised by Owen and Cobbett had advantages, but also grave effects. There was often oppression and cruelty. The factory system ended the old personal tie, and although at first there was a distinct loss, once the workers were organised more satisfactory relations between the two classes were possible than had ever been the case in the past. This was shown by the rise of Conciliation Boards in many industries after 1880, where masters and men, sitting at the same table, negotiated agreements much in advance of the previous customs. Wealth increased by leaps and bounds, though the apparent effect was at first exaggerated by rising prices. The upper class became more wealthy, but that was because its numbers had increased rather than that existing representatives became much richer. More important is the fact that the poorest classes diminished in numbers relatively to the population, while their state was better than that of their representatives at the beginning of the century, though their condition in 1850 was little, if any, better than in 1750, before the Industrial Revolution. There is reason to believe, again, that the very poorest, those on the verge of starvation, became fewer in numbers.

This comparison must not be pressed too far. Poverty, destitution, and sweated labour were everywhere in evidence even in 1900. Comparisons of this kind can be made relatively only. But taking all the facts into consideration, it cannot be denied that the condition of the working classes in 1900 was immeasurably superior to what it was at the beginning of the century. In 1800, social ethics were those of the jungle; by 1900 opinion had changed decisively, and the public conscience had awakened.

15. Moral Progress of the Masses

An aristocracy of labour again began to show itself. A rough, uncultured, working class, stimulated by the ideas of Carlyle and by the idealism of Owen and the early Socialists, began to show signs of an independent progress. Many mistakes were made, the greatest being the refusal of the workers to avail themselves of the intellectual experience of the middle classes; but the spirit infusing these men was a thoroughly healthy sign. They began to see that labour was not simply a task, and some of the old spirit of work for its own sake began to appear; improved relations between master and man resulted. One thing became certain: the old dependent relations were doomed. As usual, improvement in conditions was a stimulus to the attempt at throwing off the remaining bonds; and the struggle is not yet over, however it may end. The Industrial Revolution had given men economic freedom from their masters (at least in name), but now the new tyranny of the cash nexus began to be opposed.

Moral improvement was reflected in co-operation and saving, the latter receiving a stimulus when savings banks were founded in 1861. Friendly Societies and one section of the work of Trade Unionism had similar aims. These improvements, as well as co-operation (which in England is more important in distribution than in production), helped the working classes to make the most of their

earnings, and to spend them in the most effective manner; while the presence of a reserve, besides being a protection against high retail credit prices, served to tide over bad times.

Another helpful sign was that labour tended to pass into better-paid industries, which were generally just those requiring most skill. On the whole this meant improved conditions, because masters tended to substitute machinery for those monotonous branches of production which could be so taken over.

Perhaps the plainest sign of progress is the fact that the artisan class gradually obtained comforts superior to those of the highest classes in the Middle Ages, when display was the chief method of spending wealth. The rare spices of the Middle Ages, with many other expensive luxuries, were brought within reach of all; while many comforts and luxuries before unknown came into common use. Not only was an artisan's house more comfortable than a king's palace in former times, but sources of national wealth, such as railways, cheap postage (penny postage was introduced in 1840 by Rowland Hill), and parks, could be used by all classes at prices that were nominal compared with previous charges for similar benefits.

Unfortunately this had its bad side in a newer ostentation and display by the richer classes, but the workers were hardly affected, though wasteful expenditure was common. The cheaper dress materials provided a stimulus to quicker changes in fashion, which at last governed all classes, while the manufacturers were not slow to utilise the changing demand for their own benefit. Travel, again, became popular, as did holidays and amusements, and this had its bad side in an increasing restlessness and dislike of settled work. Still, these were unavoidable accompaniments to a real progress.[1]

[1] On this subject, Toynbee's Lectures are still of use.

16. The Cheapening of Manufactures

If the Industrial Revolution had one direct effect more important than another, it was that most manufacturing articles were cheapened; and most of the other consequences followed from this. That is, just at the time when the removal of the Corn Laws caused the price of wheat no longer to be the most important factor in household expenses, manufactures were becoming cheaper, though such progress certainly was illusory when the manufactured article was very inferior. Industry was so healthy that it could easily bear the shorter working day.

Those goods tended to rise in price which were produced at home, if they supplied an increasing demand and followed the law of diminishing return. Meat and dairy produce has been so affected, especially near towns. Rents rose, but part of the rise was the price paid for better sanitation and other governmental work. The development of quick urban transit tended to lower rents in the towns. We may sum up the beneficial effects by noticing that 50 per cent. rise of money wages occurred between 1850 and 1900.

17. The New Century: Unemployment

The new century saw, in some respects, a reversal of the earlier improvement, mainly because the large rise in prices which had occurred had not been quite covered by increase of wages. Trade, even before the War, had been prosperous enough, though agriculture remained in a depressed state, but the workers had not obtained a full share of the improvement, and unemployment had not ceased. Part of the rise was a result of improved conditions, but part was caused by an abundant currency. (See Chapter on Prices.)

When trade is depressed the great social question is that of unemployment. We now have some knowledge of its causes. In earlier times the greater stability of trade

and the possibility of access to the land made the question less important. The first cause is the fluctuation in capitalistic industry, which must occur when goods are not made to order but to cover an expected demand, which may not exist. Changes may occur outside the trade which will affect demand, while again, all industries tend to rise or fall together. The fluctuation is partly material, depending on actual demand, and partly psychological, depending on the state of mind of the manufacturer. In either case the workers will suffer when depression comes.

The other cause is the presence of a reserve of labour. This is necessitated by fluctuation. If a master has a certain number of hands at busy times, some must be dismissed when trade diminishes, and these cannot generally go to other trades, because they will probably also be depressed. Some reserve is necessary under a capitalistic system, but conditions made it larger than it should be. The divorce of the worker from the soil removed one possible source of income for an occasional factory hand. Again, the overthrow of the settlement and apprentice laws led to short period contracts being formed after 1760. If the minimum of workers is kept permanently employed, the reserve will only be the number required in excess of this at the busiest time, but when short contracts are made more men will be employed during a certain term of years, and the reserve will have to be larger. Again, after the Industrial Revolution the personal bond was lost, and chance employment was the result. The master no longer possessed a fixed minimum of personally known workers, but the number actually employed over a long period was increased, as the employer could make little selection, and would choose different men at different times.

The reserve has always existed under capitalistic conditions; fluctuation has occurred likewise. Up to 1867

financial crises, regularly occurring about every ten or eleven years, were accompanied by industrial fluctuations, though since that time depressions have been less intense but more frequent. The greater the industrial "boom," the more certainly will the depression follow. As a matter of fact, the employer, just as he retains exceptional profits, also bears the brunt of bad times, but the reservists must sooner or later suffer.

18. Economic Theories

(1) THE PHYSIOCRATS. Economic opinions[1] and theories at any time are generally determined by, or relative to, the conditions of the time. The French Physiocrats in the eighteenth century, led by Turgot and Quesnay, were the first important body of economists; in their day the French labourers were ground down by taxation and oppression, and the produce of the soil served to enrich an idle aristocracy. Hence the Physiocrats assumed that land alone produces wealth; merchants and craftsmen were unproductive in that they merely changed the form of wealth, while courtiers were positively wasteful. They assumed that wages tended down to the point at which agricultural labourers could just exist and perpetuate their race.

(2) ADAM SMITH. Adam Smith (1723-90), the founder of English political economy, and in many ways a disciple of the Physiocrats, lived in a country where commerce and industry were relatively more important than in France, and where the lower classes were fairly prosperous. Hence he did not treat the workers as a single type, but analysed the causes of differences among different classes of craftsmen and labourers. He saw that Britain was in a changing condition, and followed the Physiocrats in advocating economic freedom. He was opposed to the Law of

[1] Only the general philosophical position of the economists was sketched in Chapter I. The following sections give more definite details.

Settlement, which kept labourers in their own parish, and to all interference with trade, though he made an exception in the case of the Navigation Laws.

He held that men were the best judges of their own interest, and that the country as a whole would prosper if economic freedom was the rule. Though he was far ahead of most of his countrymen, yet he reflected the ideas of other thinking men, *e.g.* Hume, and his conceptions were those towards which the whole nation was slowly tending. Though he lived before the Industrial Revolution, his work is a product of the preparation period. When his ideas had time to permeate the nation, his influence was immense in the realm of practical as of theoretical economics.

His famous description of the working of division of labour, on which modern industrialism depends, foreshadowed later developments. He made an advance on the Physiocrats in showing that wages could rise, for a time at least, if capital increased faster than population.

(3) MALTHUS. Adam Smith was first followed by a pessimistic group of economists, whose theories were based on the misery of the working classes. Malthus (1766-1834) is famous for his essay on the principle of population. His axiom was the Law of Diminishing Return. The previous generation had seen many Utopian projects, and Malthus set out to show that even if a socialistic society was successfully started, matters would deteriorate because of the increase of population which would follow improved conditions. He saw that the Industrial Revolution had caused great misery, while the population has increased. A greater population required more food, which could only be obtained by taking in worse land, so that prices would rise. He thus assumed that improved conditions stimulated population until the old subsistence level was again reached, and supported his argument by historical investigation. He found two great checks to population, *i.e.*

vice and misery, and these actually worked their ill effects in his day.

Later he discovered a new check, a voluntary one; he recognised that later marriages might keep the population stationary, so that improved conditions might be permanent. This of course destroyed the objection to Utopian schemes, while it provided a ray of hope, and made his conclusions more complete.

Malthus made two great mistakes. He did not notice that as the population increased the power of producing wealth increased also. He was misled by exceptional conditions; many countries can bear a large agricultural population, *e.g.* China. Again, he could not prophesy the great improvements to be made in transport, in the opening up of new countries, and in agricultural processes, which all tended to cheapen food. He under-estimated the increased productiveness of a large population, following on mutual helpfulness, organisation, and division of labour. When conditions improved, the subsistence level was left behind and the application of the theory at least postponed.

(4) RICARDO. Ricardo (1772-1823) also followed Smith. Malthus influenced him, and he lived in the same hopeless times. During the Great War, he saw poorer land taken into cultivation and rents rise. His name is given to a law of rent. The poorest land cultivated had to pay its way, so that prices rose. This made cultivation on the better lands more profitable, and a better rent for them could be paid. Economic rent is the difference in productivity of the land affected and the worst land cultivated.[1]

Ricardo followed Smith in regard to wages, but adopted Malthus' later correction in saying that subsistence level depended on the customs and habits of the people, so that

[1] When the same quantities of capital and labour are used in both cases.

if the labourers improved their standard of living, they could command higher pay. He showed that value tends to be governed by cost of production, that is, under certain limitations, by the labour expended.

Ricardo was a Jew with a genius for finance, and he laid the foundations for theories of money and international trade.

(5) INFLUENCE OF THE ECONOMISTS. The influence of the economists on the rise of individualism was included in the general survey of the Industrial Revolution in Chapter I. It is necessary, however, to refer to it again here, because the theories of the Classical Economists exercised a very unfortunate influence on the fate of the working classes during the first half of the nineteenth century. Ricardo and Malthus were directly influential. From Adam Smith they inherited a philosophy of which the two main points were a belief in the supreme value of individual liberty, and the conviction that the individual in pursuing his own interest is promoting the welfare of all. To these points should be added a third, which was by no means peculiar to Smith—the doctrine of invariable law.

It was in accordance with this belief in individual liberty that the State abandoned the labourer to the blind fury of the forces of competition when it passed the Combination Laws against associations of working men for purposes in restraint of trade; and when it repealed the Elizabethan Labour Laws. The purely negative attitude which the State maintained towards labour and industrial problems through the greater part of the nineteenth century (the Factory Acts are a solitary exception), was the result of the ascendancy which the political economy of Ricardo and Malthus held on the minds of public men even when some of their doctrines had failed to pass the test of experience.

Of even greater significance from the point of view of

the working classes was the belief in the doctrine of invariable, and inevitable economic law. The existing order thus received a scientific justification. Wages, taught Ricardo, are not the result of human determinations, but of natural causes quite beyond the control of man. Population, preached Malthus, unless checked by human volition, has a natural and inevitable tendency to out-run the means of subsistence. The effect of this, continued Ricardo, is to force poorer and poorer soils into cultivation, and to automatically enhance the share of the landlord at the expense of wages and profits.

The remedy for poverty and destitution, agreed all the classical economists, is neither public charity nor the thwarting of the beneficent natural laws by an interfering State, but a voluntary diminution of the rate of increase of the population. The poor were thus held responsible for their own condition; the public conscience was quietened by the authority of science that social evils were inevitable, and non-remediable by the State.

That the laws of Ricardo and Malthus were inexorable only under certain circumstances (under absolutely unrestricted competition), and that many of their particular theories had a truth relative only to the special and peculiar circumstances of their times, does not concern us here. The all-important point is that they were accepted as true by responsible leaders of opinion with the result that economics was divorced from ethics, wealth from human welfare, for the greater part of the century.

(6) The Opposition. The working classes, however, refused to acquiesce in the economic justification of their misery. The revolt assumed various forms, Radicalism, Socialism, Trades Unionism, and Chartism. These movements are difficult to separate completely as they were not entirely independent. There were wide differences of opinions among the leaders of the various parties, but the

moderate men of all shades of opinion had much in common. Trades Unionism proper will be considered in a separate chapter, but for the sake of convenience only.

19. Radicalism

Radicalism in the early nineteenth century was not a fixed creed. Several classes of radicals worked on parallel and partly independent lines. There were the philosophers led by Bentham; the small parliamentary group of which Sir Francis Burditt was the typical representative; and lastly, there were the demogogues and agitators from Tom Paine to Cobbett and Hunt. In one sense there was little in common between the individual members of these different groups. Paine, for instance, was a disciple of those natural rights which aroused the ire of the Benthamites; Cobbett struggled vainly against the Industrial Revolution which radicalism on the whole accepted, and was primarily an agrarian reformer. The middle-class Benthamites opposed socialist ideas as vehemently as the business classes, and even Francis Place accepted the economics of Ricardo. But there was one point at which all shades of opinion united, and that was on the question of parliamentary reform and the extension of the franchise.

Speaking broadly, the radical solution of the new social problem was the diffusion of political power. Cobbett in particular taught that parliamentary reform was the first condition for economic reform, and of all the radical party he exercised the most influence on the working classes of the early nineteenth century.

Cobbett merits special mention for he was the greatest journalist of his time. Southey described him as the evangelist of the populace. His *Political Register*, which was published in a special form after 1815 to evade stamp duty, and was then sold at 2d., hence its nickname of the "Twopenny Trash," circulated in almost every working-class home. Cobbett not only denounced the opinions of

the economists, but called for a complete change in the financial system of the country. The public debt, the funding system, paper money, the Bank of England, the absorption of capital in foreign expenditure, the profits of loan-mongers and stock-jobbers, he firmly believed to be the sole cause of the misfortunes of the poor. He was the champion of the peasant and yeoman farmer, and specially hostile to the landed aristocracy. The closing years of his life were spent in organising opposition against the new Poor Law, which he believed robbed the labourer of his ancient rights in the land.

20. Socialism

(1) EARLY SOCIALISM. English socialism was born of the miseries following the peace of Waterloo. Philosophically, it was a reaction against the Ricardian economics. The first socialist sect was the Spenceans, the followers of Thomas Spence, a native of Aberdeen. Spence was an agrarian communist. He advocated the socialisation of the land which was to be vested in the parish and let out to farmers at a rental. This rent was to be the sole tax, and society was to be organised as a federation of democratic communes. Spence's doctrines were never really influential, but his followers formed connections with working-class radicalism through the London Corresponding Society, and were involved in the Cato Street Conspiracy of 1819.

Of greater importance is the group known by the name of Ricardian Socialists—Charles Hall, William Thompson, John Gray, and Francis Bray. Nothing in the history of human thought is more curious than the way in which socialism developed from doctrines, which when first propounded, had nothing in common with that creed. Montesquieu struck the first blow at the Divine Right of property when he declared in 1748 that property is merely a convention of civil society. Bentham unconsciously

threw down the challenge to inequalities of fortune when he published his doctrine of the greatest happiness for the greatest number. Locke, Smith, and Ricardo laid a foundation stone for socialism when they measured the value of commodities by the quantity of labour incorporated in them.

Between 1820 and 1830 the Ricardian Socialists seized on the vulnerable point in orthodox economic theory and made it a weapon against capitalism. In their hands, the labour, which is the source of all value, becomes the productive labour of the wage-earner, and the claims of the capitalist to interest and profit are repudiated. They provided Marx with his doctrine of surplus value, but differed from the later socialists on two important points. Their main theory, the right of labour to its whole produce, was definitely individualistic; and they rejected state interference as firmly as the orthodox economists.

(2) OWENISM. Robert Owen followed a different path. He broke with individualism definitely. The philosophical basis of individualism was a belief in society as a mechanical association of independent individuals in which reason, or self-interest, was the cohesive force. Owen, like the early French socialists, made sympathy, not reason, the social bond, and the group, not the individual, the social unit. Unlike Cobbett, who wished to return to the past, Owen saw in the factory system, if only it were organised properly, a source of wealth for all. The evils of the Industrial Revolution, he argued, were not due to the machine, but to the reckless competition and greed which had been allowed to debase the standard of life of the labouring classes. The new forces of production, he continued, must be socially controlled and organised, not to create vast wealth for the few, but for the benefit of all. The objective of the workers must be, not the destruction of the new industrialism, but the control of it through the power of association.

Like all the early socialists Owen believed it was possible to transform society by voluntary co-operation, independently of the State. He was a devout believer in environment as the cause of differences in character, and that environment is under human control; hence he was a warm advocate of working-class education. He advocated "villages of co-operation," associations of 1,200 persons on 1,200 acres of land, living, and when not employed on the land, manufacturing with the aid of machinery in the communal buildings. Invented as a cure for unemployment, the scheme at first commanded the support of many middle-class people until it was realised that, if successful, it would subvert the existing economic order. Unfortunately, too, Owen alienated many possible supporters by his attacks on organised religion.

Owen, however, did provide the working classes with an ideal. The younger generation of workmen made his doctrine of co-operation the basis of a new working-class gospel. By 1830 the co-operative movement had established itself in London, but the real effective origin came later with the Rochdale Pioneers in 1844. The Rochdale Pioneers were Owenite socialists who looked forward both to manufacturing and agriculture on co-operative lines. Their early efforts were on a modest scale, limited to the supply of food-stuffs and the system of dividing the profits proportionate to the purchases. The movement was attended with extraordinary success, and by the middle of the century over 100 societies on the Rochdale model had developed in the North of England and the Scottish Lowlands. Since 1850 the co-operative movement has proved a vital force in the life of the working classes, educationally, socially, and economically.

(3) Later Socialism. During the first half of the nineteenth century socialism developed in France on similar lines to Owenism in England. Fourier erected a

socialist system on the basis of group life cemented by feeling and emotion, not by reason. His ideal association comprised 500 families with occupations specialised in accordance with individual tastes. Pleasure, not compulsion was the driving force to labour. Unlike Owen, his interest was in agriculture, rather than in industry. Saint-Simon also desired to substitute co-operation for the good of all in place of individualism and competition. He exalted the producing classes at the expense of the idlers, and advocated the abolition of inheritance, and the placing of the workers in control of the means of production. Louis Blanc and Proudhon, like the Ricardian socialists, argued the right of the worker to the whole produce of his labour, but Blanc separated from his contemporaries by demanding State socialism This marks a new departure, and the substance of many of his ideas received concrete form later in the hands of Bismarck and Lloyd George.

Between 1850 and 1870 social reform was advocated in England by Maurice and Kingsley, sometimes called the Christian Socialists, and by John Ruskin. These men, members of the older universities, were deeply touched by the working-class misery of their time. Maurice and Kingsley supported the Owenite co-operative ideal, and Ruskin advocated State education and housing for the working classes, and old age pensions for the poor.

In the second half of the nineteenth century, socialism received a new direction and vital force in the hands of Karl Marx. In one sense Marx merely reproduced the labour theory of value of Ricardo, and the Ricardian socialists, but he gave socialism new content by providing it with a philosophy of history. Adapting the Hegelian dialectic to economics and industrial history, Marx showed that socialism was inevitable; that private capitalism contained within itself the seeds of its own ruin. Generalising from the peculiar circumstances of the English

Industrial Revolution, he formulated his law of concentration of capital from which he inferred that the logical outcome of the new industrialism would be the extinction of the middle class, with a small number of owners of all the means of production left opposed to a vast army of the proletariat. Marx saw in the course of history only a record of economic class conflicts; hence the clarion call of the Communist manifesto—" workers of all lands unite and prepare for the coming social Revolution."

Marx's influence was far greater on the Continent than in England, for the English working-class movement was never captured by the revolutionary spirit. Hyndman founded the Social Democratic Federation in 1884 on Marxist principles, but it was outshadowed in importance by the Fabian Society, inaugurated in 1883 by Sidney Webb and Bernard Shaw.

Fabianism, which has ruled English socialism during the last forty years, rejected the class war and revolution, and sought to educate middle-class opinion to the gradual emancipation of land and industrial capital from individual and class ownership, and the vesting of them in the community for the common benefit. If was, of course, in means rather than in ends that the Fabians differed from Marx; their ideal was a gradual transformation to state-ownership, not a violent revolution; and the Fabian Tracts exercised a real influence on English thought, and on the early work of the London County Council.

Between 1880 and 1890 land nationalisation attracted a good deal of attention after the publication of *Progress and Poverty* by Henry George. The argument of the book was that private property in land is essentially different from all other forms of property, and that the solution to the social problem is to nationalise the land. As a means to that end, George strongly advocated the taxation of land values and the gradual appropriation of the whole of the unearned increment, and received the support of many

who had no sympathy with orthodox socialism. Land Reform now entered Liberal politics, Chamberlain attacked the sacred rights of landed property in his Unauthorized Programme, and a later pale reflection of *Progress and Poverty* may be found in the Lloyd George Budget of 1909.

21. Chartism

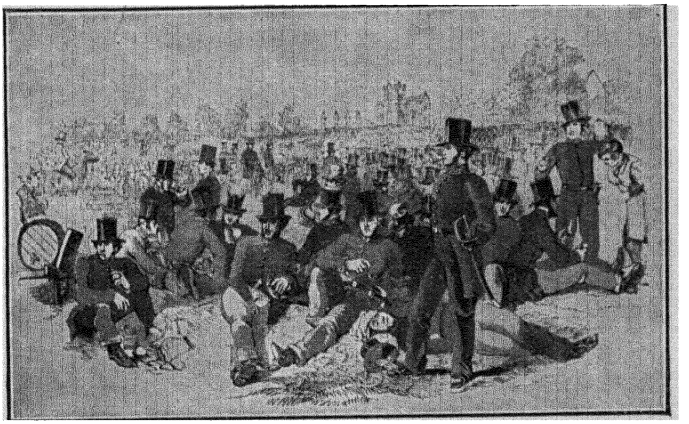
It is necessary now to retrace our steps back to 1830 and consider another working-class movement—Chartism. Like early socialism, Chartism had connections with trades unionism, but is best considered as an independent movement.

Chartism was both an economical and a political movement, but the economic aspect was the more fundamental —the political programme was merely a means to an end. In one sense, Chartism, even in 1830, was not new, all its demands were made by the puritan democrats of the period 1648-58, but several circumstances gave it a new impetus between 1834 and 1840. In the first place there was a mass of unrest in the textile districts of the Midlands and the North, caused by unemployment, and strengthened by the New Poor Law. Secondly, there was the dissatisfaction of the lower middle-class shopkeepers, and skilled artisans of London and the older towns with the Reform Bill of 1832. It must also be remembered that Cobbett's political pamphlets had been teaching the working classes for years that parliamentary reform alone could remove economic grievances.

The first leaders of Chartism were the men who had led the working-class radicals in the earlier agitation for parliamentary reform. In London, the leaders of the National Union of the Working Classes, Lovett, Hetherington, O'Brien, Watson, and Carpenter identified themselves with the new movement. In Birmingham, the great Midland stronghold, the movement centred round Attwood, the banker and radical M.P. Attwood, however, had his

main interest in currency reform. The fighting strength of the movement came from the north, where the fiery oratory of Stephens and Richard Oastler roused the masses to action. They had, however, no positive programme, except a revision of the new system of poor relief.

In 1836 a new leader appeared in the north, an Irishman, Feargus O'Connor, who founded a radical paper, *The Northern Star*, at Leeds. O'Connor had immense influence



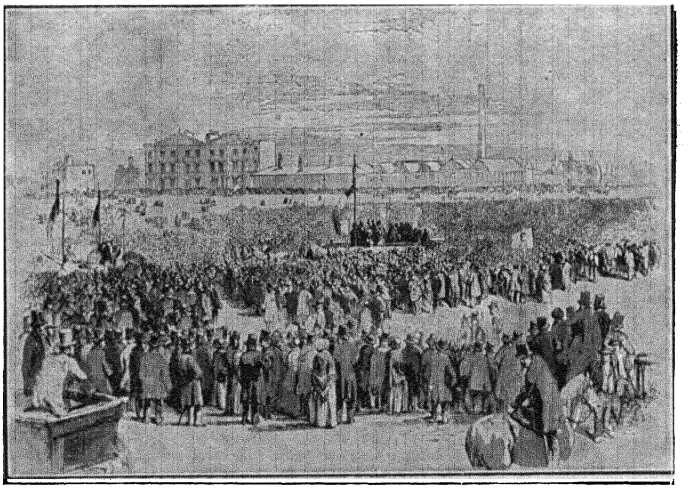
POLICE AWAITING THE CHARTIST PROCESSION IN HYDE PARK.
From the *Illustrated London News.*

with the working classes, and he succeeded in transforming the northern agitation against the Poor Law into a movement for political reform.

The actual Charter sprang out of a meeting of the London Working Men's Association at the "Crown and Anchor" tavern in 1837. A resolution was passed to present a petition to Parliament demanding universal suffrage, abolition of property qualification, annual parliaments, equal representation, payment of members, and the

ballot. Lovett drafted the Charter with the assistance of Roebuck and Place, and it was published in 1838. At the same time, the Birmingham Union issued its National Petition containing the same demands.

In the following year the Chartist Petition was presented in Parliament. Attwood, Fielden, and Hume supported it, Lord John Russell and Disraeli opposed it, and the



CHARTIST GATHERING.
The great gathering in Hyde Park to present the Monster Petition.
From the *Illustrated London News*.

petition was rejected by an overwhelming majority. The Chartist leaders attempted to engineer a national strike, but the necessary funds and organisation were lacking. Serious differences of opinion now divided the leaders into moral-force and physical-force Chartists, but before the extremists could take action, the Government arrested Lovett, Benbow, Vincent, and Stephens. South Wales and Yorkshire then talked of insurrection, and an abortive

rising took place at Newport, but the Chartists were in no position to cope with the Government, and in 1840 the movement temporarily collapsed.

After 1841 Chartism showed signs of revival, but working-class allegiance was weakened by the rise of another and in many respects opposed movement—the Anti-Corn Law League. The Leaguers suspected the Chartists of aiming at the subversion of society; the Chartists in their turn regarded the cry of cheap corn as a device to lower wages. On the whole, however, the balance of advantage was with the League. Its programme was simple and definite, and it contained no attack, implied or avowed, on the existing order of society; hence every forward movement of the Chartist extremists drove the moderates into the ranks of the League. In 1842 Joseph Sturge, who had succeeded Attwood at Birmingham, attempted to unite Chartists and Anti-Corn Law Leaguers with a reform programme, very moderate, but without success. Dunscombe and O'Connor now presented a second petition in Parliament, but it was rejected after a trenchant attack on universal suffrage by Macaulay.

By 1846 Chartism was under the complete control of O'Connor, but it was being steadily undermined by other forces. The repeal of the Corn Laws gradually removed the working-class grievance of dear food; the Factory Acts (1847 Ten Hours Act) provided better working conditions; and the new co-operative movement offered an outlet for northern energy. O'Connor tried to counteract these disintegrating tendencies with his Land Settlement Scheme, framed on lines similar to that of Robert Owen. In 1848, when revolution swept over Europe, O'Connor summoned a new National Convention. There was much wild talk of revolutionary insurrection, and a third abortive petition was presented to Parliament. London was too well guarded, however, for physical force to be tried, and the movement finally collapsed.

Chartism failed for various reasons. In the first place, the Repeal of the Corn Laws and the passing of the Ten Hours' Factory Act promised much for the future economic welfare of the toiling masses. The co-operative movement, too, diverted interest into other channels. More fundamentally, however, behind the Chartist movement there was no real unity of aims and ideas. Socialists, currency and agrarian reformers, opponents of the Poor Law and the factory system, all struggled to divert Chartism to their own particular advantage. With the gradual evolution of political and social ideas, the points of the Charter have been practically conceded, but in 1848 the time was not ripe for the change. The working classes were uneducated, undisciplined, and unorganised, and above all, lacked adequate leadership; these were the ultimate reasons why Chartism failed.

CHAPTER VIII

THE POOR LAWS, SOCIAL INSURANCE ACTS, AND STATE EDUCATION

I—The Poor Laws

1. Introduction

The origin and early growth of the English Poor Law system dates back to the sixteenth century. The Elizabethan Act of 1601 marked the end of the experimental stage. The three main classes of poor—the unemployed, the idle, and the impotent, were separately considered; the unemployed were given special work under effective supervision; the idle were punished in the House of Correction or forced to work under unpleasant conditions; and an attempt was made to educate them so as to bring them back to habits of industry. The children were apprenticed and thus saved to the country, while the impotent old were cared for.

The essence of the Act was that the parish was made chargeable by law, thus it was to the interest of a parish to drive out its poor if possible. Compulsion had become necessary as the voluntary method had broken down.

Every householder of every parish was to be taxed, and the fund so raised was to be applied by the Overseers, the Churchwardens, and others, appointed by the Justices. With the consent of the Lord of the Manor, the Overseers might build houses on the common for the paupers. The parents, children, and grand-parents of paupers were made liable for the expenses incurred.

The parishes, on the whole, liked their new obligations

as little as they had responded to the old voluntary demand, and pressure often had to be brought to bear to compel them to do their duty. Further, there were great variations in the different parishes as regards treatment of paupers. In one way the law was an obstacle to industry. Vagrants moved towards those parishes with the best reputation for generosity, while poor persons migrated in order to improve their prospects of obtaining relief. For the sake of the parishes affected, the Act of Settlement of 1662 was passed, and by this law a parish could remove a newcomer within 40 days if he was likely to become a burden on the rates.

Industrially bad though the principle was, yet the parishes had a grievance, and they had their way. An Act of 1795 improved matters by stating that a newcomer could not be removed until he had actually come on the rates.

After the Civil War central administrative control over the local authorities largely ceased, and magistrates and overseers were left to administer the Poor Law in accordance with local feeling. Control of the system passed gradually into the hands of the overseers, and the result was a lax administration. Abuses led to the Act of 1691, and authority now passed to the justices who could grant relief as they pleased, and there was no appeal against their decision.

This made matters worse, for the overseers, being confined to a single parish, had some sense of responsibility, while the justices were out of touch with local conditions, and their more luxurious habits of life gave them a wrong conception of the amount of relief required.

The success of the Bristol Workhouse experiment of 1697 led to the stricter Act of 1722. After 1722 the justices could no longer grant relief until the overseers had refused it. This increased the powers and responsibility of the latter, and it placed an obstacle in the way of those who

wished to obtain relief on insufficient grounds from a weak magistrate. Unfortunately, the decision of a justice was still final, in this lay the seeds of future misfortunes.

Again, parishes were now permitted (without special legislation) to combine to build workhouses, and the latter were allowed to be used as tests, as in Bristol. No one refusing indoor relief was entitled to ask or receive grants. The law at first worked satisfactorily, but no mention of central control was made, so that each authority became a law to itself.

The accession of George III. in 1760 we have taken as the date of the beginning of the Industrial Revolution. We have already seen that this reign saw rapid changes in nearly every department of human life, and the different effects reacted on each other. It is hard to suppose that the introduction of machinery and the mastery over nature were the sole causes of all the changes; rather we should say that there was a spirit in the nation which was the cause of progress in many directions, as the Elizabethan age was in all ways one of the most notable periods in our history. Yet the Industrial Revolution is the outstanding phenomenon, and it must be examined in relation to all changes.

The question of pauperism is the one which perhaps presents most difficulty. Some suppose that industrial deficiencies were the cause of poor law troubles at this time, and more think that the vicious administration directly caused most of the industrial troubles. Both extreme views must be rejected; yet both contain a certain amount of truth.

In this question many conflicting factors must be considered. The Settlement Laws and the whole question of mobility of labour must be taken into account; the moral effects of the Industrial Revolution and the moral legacies of past repression in agricultural districts are also of importance.

2. Relation to Industrial Change

If the question is carefully studied it will be seen that the pauperism of the time was in some measure independent of industrial change. The former was dependent on two things: legislation and administration. It was governed by the law of the land much more strictly than industry, which has always been mainly independent. The Poor Law is a creation of government, and is a correction of, and interference with, industry; it is thus largely artificial, governed by statutes dating perhaps far back. Administration, again, was nominally in the hands of overseers, but gradually applicants had realised their power, and appealed to the justices; again, the intending pauper could choose his magistrate. The latter belonged to a conservative class little affected by the Industrial Revolution.

In some measure, then, the poor law followed its own line of development, and we may suppose that the same changes would have taken place, though less in degree, had there been no revolution, *i.e.* if progress had been slow. We can say that the poor law had some direct independent effect on the condition of the working classes. In any case the industrial changes in organisation made such alterations that the miseries of the common people were a direct stimulus to changes in the poor law, and these changes produced further ill effects. Thus the natural growth of sentimentalism, the increased opportunities of the justices, and the miseries of the time all combined to produce the coming catastrophe.

The first important change was made by Gilbert's Act in 1782. Undoubtedly the unpaid overseers had become corrupt, and their work was badly done. The workhouse test had been growing laxer, men were relieved at home, and overseers were called on to provide employment. The justices, assumed to be omnipotent, received again the initial power, and they worked now through guardians. The Act was permissive.

The parish had been blamed for much of the costliness and inefficiency of the system, so that unions of parishes were now formed and workhouses ordered, though these could henceforth be used only for the impotent, a direct reversal of the test policy. The guardians were to provide work for the unemployed poor. The result was a sudden and great increase in expenditure, which doubled in the next twenty years, rising to a maximum in 1817.

3. The Speenhamland Justices

The Berkshire Justices handed down their names to posterity at Speenhamland, near Newbury, in 1795. Here the allowance system was originated, though it is only fair to say that it was in accord with the wishes of the people, at least in the south. By this system the justices granted relief to labourers because their wages were too small; a calculation was made (according to a scale fixed by the price of wheat) depending on the number of children in the family. In the next year a new Act repealed that of 1722. Outdoor relief to the able-bodied was legalised. The test was thought to have been " injurious to the comfort and happiness of poor persons." Relief was ordered to the " industrious " at their homes. Thus the way was open for the events to come.

4. The Effect of their Policy

The Speenhamland policy spread over the south and even into the north of England, and was fatal in its effects, which were most obvious between 1795 and 1834. It was unfair and vicious; it hurt the class it was supposed to benefit. The intention may have been good, though much leniency was explainable by fear or desire for popularity. It pauperised the agricultural labourers of the south, and the effect is still felt.

As the wages of these labourers were made up by the parish, it was possible for the employer to pay much less

than was required for subsistence. Hence in the first place the system was a subsidising of the employers at the expense of the ratepayers. The arrangement, spreading, became customary, so that wages gradually fell almost to vanishing point.

The effect on the ratepayers was naturally disastrous, and the poorer section of these was in a sad state. As wages lowered and pauperism increased, the rates rose until the poorer landowners were ruined. The tendency in time was for the rates to rise until they were as great as the income from the property. After this point it was profitable for the landowner to give away his land if any would receive it. This case actually did occur. At Cholesbury in Bucks the rates rose from £10 in 1801 to £100 in 1816 and £150 in 1831. At this point it was not possible to collect them, as the landowners had given up their land. This was an extreme instance, but it showed in which direction events were tending.

The same system occurred in some measure in manufacture, but pauper labour was also directly employed. Gangs of children were sent to the factories and housed roughly till they were worn out; these could compete with adult labour for the purpose of watching machinery. Similarly by the system of " roundsmen " a farmer escaped part of his rate if he employed pauper labourers.

The evils of the system were manifold. In agriculture some of the land gradually fell into disuse just when an increasing population required more food. The labour was inefficient. The labourers knew the laws; they could choose their magistrate and apply pressure, and so obtained relief as a right. Hence they became arrogant and refused to give a good day's work. They knew that their employers only gave them a starvation wage; they had thus no incentive to work hard. Whatever the skill and industry of a labourer he did not profit by it, as the allowance depended on his wages.

Labour deteriorated, as did morals. In place of an honest endeavour to earn a living was developed a low cunning which aimed at avoiding work. The independent labourer was looked on with contempt as a fool. Fraud and trickery were the usual means of obtaining a sufficient allowance; the justices were fawned on or else threatened. Gratitude there was none.

The most pitiable class was the free labourer. Any man honest enough to keep his independence and to refuse to descend to mean artifices in order to increase his wages had to suffer. Firstly, however hard he worked he could never obtain a better position than his pauperised competitor. Next, employers actually preferred paupers, as they did not require even subsistence wages. Here the employers were often short-sighted, as in many cases it would have been better to employ the more expensive efficient free labour than the cheap pauper variety, but before this fact was fully realised the country was almost completely pauperised.

The thrifty were penalised. They could obtain no work, their savings became exhausted, and they had to come on to the poor rate. The allowance being based on the size of the family, the unmarried man was looked on with disfavour. Hence it was to his interest to marry and rear a large family. This vicious system was one of the main causes of the large increase of the worst section of the population. The most foolish and improvident were encouraged; the aim was to have as many children as possible, while legitimacy was a secondary consideration. The sons and daughters saw the good effects of the opportunism of their parents, and had known nothing but pauperism from their birth; this, then, became hereditary.

Even the employers suffered, though they deserved little sympathy. They did not notice that pauper labour was perhaps immediately harmful, certainly so in the long run. They saw a chance of obtaining immediate benefit at the

public expense, and took it. Yet agriculture demands moral and mental qualities of a high order, though the specialised nature of these causes the fact to be overlooked. Honesty is required, and hard, steady work. It needs much intelligence to plough a straight furrow.

Now these were just the qualities lacking in the pauperised labourer. The training acquired in obtaining allowances hardly made for honesty; a really intelligent man, who looked ahead, would never willingly be a pauper, as the dependent condition gave no scope for his ability. The fact that nothing depended on the work done lessened its importance and discouraged habits of industry. The employer tried to get the full amount of work; the labourer, in a strategic position, refused to give it, and enmity was the result, the moral character of master and man deteriorating.

Manufacturers were more fortunately situated (for themselves). Dishonesty could be checked by overlookers, who could watch the workers easily, these being massed in a small space, so that punishment was easy and certain. Diligence was secured by the same means. The overlookers were a special type, hard, unfeeling, and brutal, admirably fitted for the work of obtaining the maximum product. Intelligence was a minor matter; the labourer was simply a machine who did certain tasks with monotonous regularity. Hence pauper labour was here less permanently harmful (to the manufacturer). The result was that industries sprung up in thoroughly unsuitable places (*e.g.* Essex), where such labour was cheap and abundant, and where the lessening of expenses more than compensated for lack of natural advantages. The system thus subsidised illegitimate industry at the expense of its rivals.

Family ties were broken, and a real proletariat formed. The members of the family were quite independent almost from childhood, and the natural results followed. A son could obtain poor relief for himself at the age of fourteen,

when he became independent in every way. Ties of affection were generally weakened.

The worst sufferers of all, in the end, were the pauperised labourers themselves. Just as no labourer could obtain, under ordinary circumstances, more than a bare subsistence however hard he worked, so also the result of the low ideals was that the labourer was depressed to a certain level, above which he could not raise himself, while the system helped to keep him down. The decrease of independence and of the habits of industry, quite apart from the undoubted loss of efficiency at the time, also prevented any future improvement, so that the worker was doomed to be affected by all the misfortunes of the period, while exceptional prosperity brought no hope. The pauper labourer had chosen to do little work, provided that he could obtain necessaries; the result was that for generations the same necessaries must represent his most favourable state. Here we have another example of the law that where natural tendencies are interfered with for the benefit of one class, forces tend to act which defeat the object in view.

The root of the trouble lay in the fact that the employing classes still possessed mediaeval conceptions of employment. Landowners now, as formerly, supposed that it was a charitable thing to provide work for dependents, forgetting that the labourers performed an equal service in return. Elizabethan legislation had not distinguished clearly between employment and charity (the Poor Law dealt with complex questions). The labourers in the south accepted this view with their accustomed docility, and the sense of independence, which was an essential of a successful Industrial Revolution, was lost. The aim was legally to keep the worker in his parish, bribing him by promises of relief. The harm done was thus two-fold. A proletariat was produced without its saving (economic) merit of mobility.

This question of mobility is a difficult one, but we can certainly say that harm is done when all men are confined to their place by external forces, just as surely as we saw that a working class which had no permanent home ties was in an unnatural state. It must be repeated that the movement of a small minority of the population is sufficient to prevent overcrowding or supply labour where wanted; the truth seems to be that some circulation is necessary for healthy economic life, and no obstacle should be put in its way. Forced settlement causes moral evils greater than those produced by constant movement.

The Speenhamland policy was dominant till 1834. In 1801 the justices were given powers of rating; as usual, they were considered more pliable than the overseers. In 1817 a House of Commons Committee brought forward useful proposals, but little was effected; select vestries were appointed in places. In 1828 accommodation for pauper lunatics was improved; these had been neglected in the past, showing that the sentimentalism of the justices was not very deep-seated.

After 1817 expenditure had slightly lessened, but matters were very bad in 1832, when the Poor Law Commission started its labours.

5. The Poor Law Commission Report of 1834

In 1834 the famous Report of the Commission was presented. Senior the economist and Chadwick the administrator were the moving spirits. First, it was held that all those who then worked the poor law were incompetent. The unpaid overseers were ignorant and without incentive to do good work. They kept no books, while favouritism and trickery were the rule; embezzlement was common. They took little trouble with their work; if conscientious, they could be humbled before the magistrates or exposed to violence. The vestries were in a similar state.

The magistrates were judged more easily, perhaps, than they deserved, as it was held that they erred through ignorance, but the allowance system was strongly condemned, as was the leniency of the administration. It was complained that there was no effective central pressure to force them to do satisfactory work. The condition of the working classes was graphically described.

The method of improvement was held to be national uniformity obtained by strong central pressure. This would reduce discontent and unnecessary movement of population, while greater control would be obtained. The uniformity referred to districts; all paupers in a similar position were to be treated alike. Different classes of paupers were clearly marked off, each section needing special treatment.

6. The Principles of Relief

The first principle of relief laid down was that the condition of a pauper should be, or appear to be, less eligible than that of the worst situated independent labourer of the lowest class. The principle of relief was held to be sound, and if well defined the lazy would lose all excuse for idleness, but the parish should be the " hardest taskmaster and the worst paymaster," so that relief would be a last resource.

The second principle was that relief should be given to the able-bodied only in workhouses, well conducted according to the spirit and intention of the Act of 1601. Outdoor relief to them and their families should be discontinued except in case of illness or for the apprenticeship of children. The aim of relief being the prevention of destitution, defined by the willingness to enter a well-conducted workhouse, and not the removal of poverty; grants at the recipient's home were inconsistent with true principles.

The Commissioners held that discrimination according to merit in the case of outdoor relief was inadvisable, as

in the past it had led to fraud. Cases of peculiar hardship should not be considered by the guardians, but should be left to charity.

In the workhouse the work should be useful, and not unnecessarily repulsive. Four classes of inmates were defined, and separate buildings for each were advised. The able-bodied males and the able-bodied females should be the least in number; it was hoped that they, as well as the out-paupers, would completely disappear. Then would come the aged and impotent, and lastly the children.

7. Poor Law Acts

The subject has been treated fully, because the recommendations were not embodied in a Bill, though action was immediate and decisive. The Poor Law Amendment Act of the same year gave the Central authority wide powers, Parliament not trusting itself to pass a detailed statute. The policy has continued to the present; central pressure is more felt in poor law matters than in any others, because it is or was held that uniformity was the one thing needful. Again, the department was made non-political.

One point was specifically mentioned in the Act; relief to the able-bodied except in workhouses was made illegal, the workhouse test again being introduced.

A Central Board was instituted consisting of three fit persons as Poor Law Commissioners. Their power was practically bound only by existing statutes and by the fact that they could not order relief in individual cases. They were not represented in Parliament, so that their work could only be inspected by Parliamentary Commissions. Local administration was in the hands of Boards of Guardians.

The Commissioners were empowered to combine parishes into unions to build workhouses, though each parish had to pay for its own poor. The appointment and removal of

officers was supervised by them, as were details of supplies. The system of accounts was made uniform. Alterations in the system of vagrancy relief were made; it was found impossible to treat travellers like ordinary paupers. The Settlement Laws were practically abolished.

8. The New System

The new system was inspired by the Report, and the results show the wisdom of its authors. The rate of increase of population (which had been quickest among the paupers) lessened; the "surplus" population practically disappeared. The farmers and the manufacturers were obliged to show that it was possible to pay subsistence wages. Most of the paupers found work in their own parish, but some migrated to progressive districts. A few were hard pressed by the stricter poor law system; a whole class began to get back its self-respect.

Criticism of this system resolves itself into dissatisfaction with the ideas of Senior and Chadwick. The former, a "classical" economist, believed in a few basic human motives, and, like all his class, carried his theories to extremes. He saw that independence was a great thing, but did not recognise its limitations. He hardly realised the permanent position that pauperism had obtained, and had too little human sympathy with the actual unfortunates.

Chadwick believed in centralisation, and subordinated the feelings of a few to the system as a whole. Far-seeing though he was, he failed to grasp the meaning of the opposition to his principles, because he could not see the human issues involved. Once the central authority lost its power, public sentiment was sure to undo his work. He was, above all, an official, and superior well-meaning attempts at reform are generally criticised.

Senior and Chadwick thus sponsored a view which has persisted to the present day, that the new Poor Law, by

restoring the wise control which had been withdrawn from the administration of the system by the foolish philanthrophy of the eighteenth century, reverted to the policy of Elizabeth, and thus arrested the demoralisation of the English labouring classes.

This view, however, ignores the fundamental difference between England of 1700 and England of 1830. It is true that Gilbert's Act marks a change of policy, and that the Act of 1798 deliberately reversed that of 1722; but the change was not due to mistaken philanthrophy, it was necessitated by new economic forces, the future development of which was never suspected by the Elizabethan legislators.

The expedients for creating relief work for the unemployed, adopted in the closing years of Elizabeth's reign, did not apply to agricultural labourers for the very good reason that unemployed agricultural labourers were considered either idle or vagrants. By the end of the eighteenth century, however, the new economic conditions resulting from enclosures, and the failure of agricultural wages to adjust themselves to these new conditions, placed the rural labourers in the unfortunate position of being unable to live without relief. Various palliatives were suggested, from Whitbread's Minimum Wage Bill to allotments for every labourer's cottage, and the substitution of potato for wheat bread. The proper remedy was to have raised wages, but in default of that, Speenhamland was inevitable.

The New Poor Law achieved its purpose in the rural areas of the south, as the suspension of the allowance system coincided with a demand for labour in the railway construction and mining industries, and migration was the only alternative to the workhouse, or starvation. The law, however, was much less successful in the urban and industrial districts of the midlands and the north where it contributed directly to the spread of Chartism.

The reason was that the problem of poverty, which was beginning to assume serious proportions in the industrial towns, was due to causes differing widely from those of the rural areas which the new law was framed to combat. By 1834 the factory operative in the new towns had become subject to the fluctuations of an international market, the vagaries of which were wholly beyond his control. The growing specialisation of labour resulting from the introduction of machine production, by making each process dependent upon others, had created an instability of employment unknown to the sixteenth and seventeenth centuries. To suppose that industrial employment was there for all able and willing to search for it was a cruel fallacy even then, and it is precisely for that reason that subsequent poor law history is a gradual breaking away from the fundamental principles of 1834.

9. Later History: the Local Government Board

The central authority responsible for the administration of the New Law was appointed, in the first place, for only five years. During that period the opposition was so fierce that the system had to fight hard, and it could not make itself felt in Parliament. In 1847 the Poor Law Board was instituted. It obtained a powerful president, was represented in Parliament, and was connected with the Government; the Board consisted of ex-officio (Parliamentary) members. In 1871 the administration of the poor law was placed under the newly-constituted Local Government Board. This was not a committee of experts, but had a political head whose tenure depended on that of the Government in power.

Poor Law conditions in the last century have been dependent on external changes. After the Reform Bill of 1832 more people took an interest in public affairs, so that the new administration was conducted under more enlightened supervision; the old irresponsible criticism

diminished. The times were hard, and yet a difficult reform was carried through. Improved conditions in the early forties led to the Outdoor Relief Prohibitory Order of 1844. The distress caused by the crisis of 1847 led to increased pauperism, and the formation of the Poor Law Board. The development of trade in the early fifties led to the Regulation Order for Outdoor Relief, while the Crimean War again caused an increased amount of pauperism.

But in no instance were the fundamental principles of 1834 rigidly carried out. The Commissioners failed to secure uniformity of treatment, and they never succeeded in abolishing outdoor relief. It proved impossible in practice to frame a standard of treatment by which the pauper should be placed in a worse position than that of the working labourer; and the principle laid down in the Poor Law Report that the aged, the infirm, and the children should be housed in separate institutions was never carried out. The economic causes making for poverty in the industrial towns of the midlands and the north differed so radically from the rural problems of the south that the Commissioners were compelled to administer the Act in an intermediary spirit; and in this respect, there was no general change of policy between 1847 and 1871.

Between 1871 and 1907 the Boards of Guardians, to which was transferred the local administration of poor relief by the Act of 1834, were influenced by the central authority in two opposed ways. During the period 1871-1885 the Local Government Board attempted to enforce through its inspectors a rigid application of the principles of 1834. Constant and steady pressure was exercised with the object of reducing outdoor relief, and of equalising conditions between the different Unions.

After 1886 this policy was modified, and while the principles of 1834 were rigorously applied against tramps or common wayfarers, more sympathetic treatment was

meted out to those classes periodically impoverished by the fluctuations of trade. This more humanitarian spirit was, no doubt, stimulated by the researches of Mr. Booth among the London poor. He showed that 30 per cent. of the population of London were living in permanent poverty, and that more than 40 per cent. of the working classes over 65 years of age were in receipt of Poor Law relief during some part of a year. Some years later, in 1901, Rowntree published the results of a similar inquiry with respect to the city of York, where he found 28 per cent. of the population living below the minimum standard of decent life.

These revelations of social canker in the richest country in the world caused much moral uneasiness. The whole question of poverty was investigated once again by a Commission appointed in 1905, and which published its report in 1909. The faults of the system were reported to be weak administration, lack of organisation, and want of confidence in the central power. The Local Government Board could exercise great control by regulation of action, inspection, and audit of accounts, but was not in sympathy with the Local Authorities.

The Report presented higher ideals. Greater attention should be paid to cure and prevention. Hence it was held that outdoor relief should be given if the habits of life of the recipient were such as were likely to cause improvement. Such relief should never in future be given without conditions in the case of the able-bodied.

Certain recommendations were made by all members, —the abolition of the Boards of Guardians; the enlargement of the area of administration from the Union to the County and County Borough; and the provision of classified institutions instead of the general mixed workhouse. Other unanimous recommendations were Old Age Pensions, the establishment of Labour Exchanges with a State insurance scheme against sickness and unemployment, and the removal of children from workhouses.

The Majority recommendations other than the above, were the substitution of Public Assistance Authorities for the Boards of Guardians, and the establishment of voluntary Aid Councils and voluntary Aid Committees to act as intermediaries between public assistance and charity. County and Local Medical Assistance Committees should be created to provide medical relief on a provident basis. Outdoor relief should be adequate to needs, and subject to proper supervision; the case paper system should be adopted, and a Public Assistance Service established.

The Minority Report recommended that the non-able-bodied should be dealt with by the existing committees of the County and Borough Councils—Education Committee, Health Committee, Asylums Committee, etc. The committees should be supervised by the appropriate Government Departments. With respect to the able-bodied poor, the Minority recommended that they should be handed over to a separate and special authority. Unemployment should be under the control of the Minister of Labour, and Registrars of Public Assistance should be appointed for local areas to prevent overlapping of services

The Minority Report differed in principle from the Majority. It wished to purge the system of relief from all taint of pauperism. The unfortunate citizen, deprived of his livelihood through industrial causes beyond his control, has a definite claim to assistance from the State.

The Report as a whole was not followed by new legislation until after the creation of fresh problems arising out of the Great War.

2—Education

10. The Position of Education in 1802. Bell and Lancaster

The origin of primary education of the working classes began with the appointment of a discreet person to instruct the pauper children in the Plymouth workhouse at the

A SABBATH EVENING SCHOOL IN THE EIGHTEENTH CENTURY.

beginning of the eighteenth century. An important step forward was taken by Peel's Factory Act of 1802 which required the employer to provide adequate instruction in reading, writing, and arithmetic, during the first four years of apprenticeship. This clause of the Act was not generally enforced, but it did show that the State was beginning to recognise its responsibilities in the matter of education.

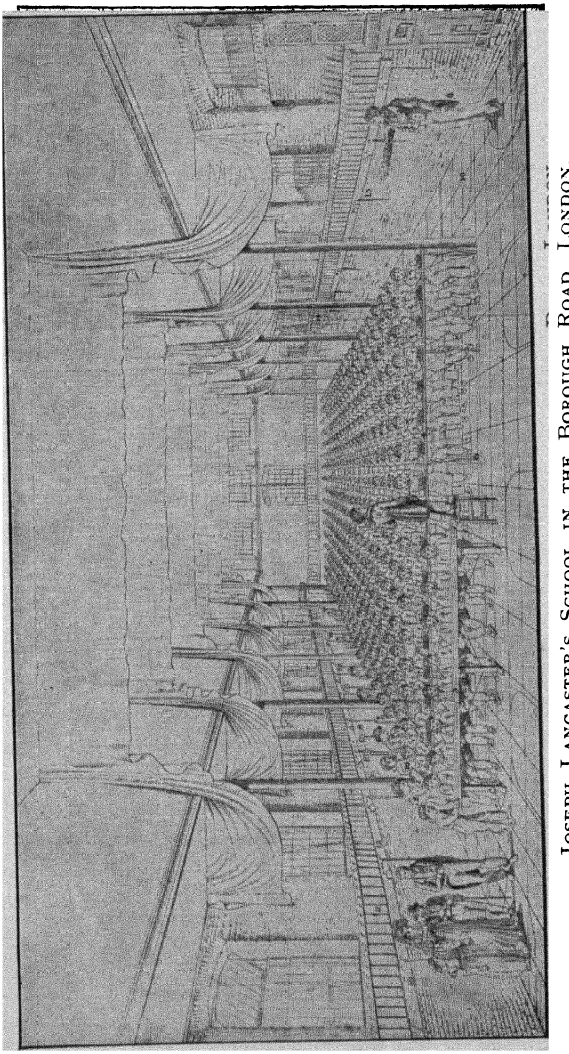
Among the early pioneers who recognised the necessity of establishing primary schools and developing a comprehensive system, the names of Bell and Lancaster are pre-eminent. These men received powerful support from two great educational organisations, founded at the beginning of the nineteenth century,—The British and Foreign Schools Society (1808) and the National Society for Promoting the Education of the Poor in the Principles of the Established Church (1811).

11. The Education Grant, 1833. Higher Education

The first primary schools were wholly supported by voluntary contributions and school fees. In 1833, the Government, for the first time, made a grant of £20,000 to be applied to new school buildings, and the grant was distributed on the recommendation of the two educational societies mentioned in the previous paragraph.

These early schools were partly vocational. In addition to giving instruction in the rudiments of general education they paid some attention to matters pertaining to the child's future mode of livelihood. This idea was not new; it was an integral part of the Poor Law theory of the seventeenth and early eighteenth centuries. In 1839 the Education grant was increased to £30,000, and its administration was lodged in a Committee of the Privy Council; and the inspection of assisted schools was commenced.

During the period 1830-40 the two Educational Societies founded Training Colleges for Teachers in various parts of the country with the object of staffing the schools with



JOSEPH LANCASTER'S SCHOOL IN THE BOROUGH ROAD, LONDON.

teachers of superior education and definite training in methods of teaching. At the same time, under the influence of Bentham and Place, a movement was made towards the establishment of a new grade of school with a curriculum more advanced than that of the original primary institution.

12. Education 1840-1870. The Revised Code of 1861

The next thirty years was a record mainly of a struggle between the Established Church and Nonconformity to obtain control of the system. It was this jealousy combined with the *laissez-faire* attitude of the influential classes that delayed the appearance of the State school until 1870.

The half-time system had crept in with the Factory Act of 1844, mainly through the influence of the factory inspectors, and according to their reports, by 1860 the voluntary system had proved unequal to stand the strain. In 1858 a Royal Commission on Education was appointed, and the recommendations of the Commission were embodied in the Revised Code of 1861 issued by Robert Lowe. The New Code restricted the primary schools to the rudiments of education, and introduced the system of payments by results.

13. The Elementary Education Act, 1870

The New Code had been in operation only a few years when a social change of the greatest significance occurred. This was Disraeli's Reform Act of 1867, which placed the balance of political power within the hands of the working classes. This coming of democracy was reflected in the education system by W. E. Forster's Act of 1870, which instituted, alongside the old denominational system, elective School Boards having the power to build and maintain schools out of a local rate; and made compulsory the attendance of all children between five and thirteen

years of age. For the purposes of elementary education the whole country was mapped out into districts—boroughs, or groups of parishes, and each was required to frame by-laws suited to the needs of its district. The compulsory attendance clauses were at first only permissive, and where made, were subject to numerous exemptions. The Board Schools were secular in character, and small fees were charged.

In 1875 and 1880 the permissive clauses were amended and direct compulsion was applied. The fees were abolished in State-aided elementary schools by Lord Salisbury's government in 1891, and in 1896 State grants were given to voluntary schools that had reached a certain standard of efficiency certified by the Inspector's Report.

During the last thirty years of the century, largely through the influence of the writings of Herbert Spencer and Huxley, the elementary curriculum was again expanded. The Higher Grade school with a bias towards science developed, and the movement was stimulated by the Technical Instruction Act of 1889, which vested the newly-created County Councils and other local bodies, with power to supply or to aid the supply of technical and manual education. The Royal Commission of 1895 recommended a State system of secondary education, and that one central education authority should be established. This was effected by the Board of Education Act of 1899, which merged the powers of the Education Department, the Science and Art Department, and the Charity Commission (in respect of educational endowments) in the newly-constituted Board of Education.

14. The Education Act of 1902

The progress of higher education was ruthlessly interrupted by the Cockerton Judgment of 1901, which ruled that School Boards had exceeded their powers in using rates-raised money for purposes not specified in the Code.

This difficulty was solved by the Education Act of 1902, which transferred the local control of State-aided schools to the County and Borough Councils, whose Education Committees superseded the specially-elected School Boards. The old Higher Grade schools were transformed into Council Secondary schools and differed from the ancient Grammar schools in attaching more importance to modern studies.

The importance of the 1902 Act cannot be over-estimated. It marks the beginning of a really national educational system. In 1906, following the recommendations of the Commission of Physical Deterioration published in 1904, the Provision of Meals Act enabled Local Authorities to provide meals for children attending elementary schools, and to recover the costs from parents in a position to pay. Another far-reaching reform was effected in 1907 by an Act which imposed on all Local Authorities the duty of instituting free medical inspection and treatment for children in elementary schools. This innovation was the result of the discovery by the Commission on Physical Deterioration of the large proportion of scholars suffering from malnutrition, and from defects of the eyes, ears, and teeth. Another link in the chain was forged by the Children's Act of 1908 which prohibited the sale of drink and tobacco to children; and which instituted special courts and probation officers for young offenders, and regulated the industrial schools. No further educational changes of importance occurred until 1918.

3—Public Health and Housing

15. Introduction

The rapid and unregulated growth of the new towns in the early stages of the Industrial Revolution brought before general notice the question of Public Health and the necessity for organised action. In 1838 the Poor Law

Commissioners received reports from Dr. Arnott, Sir James Kay Shuttleworth, and Southwood Smith on the causes of sickness and mortality in London. The year following, the Commissioners drew the attention of the Home Secretary, Lord John Russell, to the insanitary state of the Metropolis. The result was that in 1839 a Select Committee was appointed which reported, in 1843, on the sanitary conditions under which lived the labouring classes of Great Britain.

The discussion in Parliament which followed this report led to a Royal Commission on the health of towns which issued its report in 1845. This report coincided with a severe outbreak of Asiatic cholera which roused Parliament to action, and through the influence of Bentham's followers Model Clauses Acts were passed between 1845 and 1847,—The Town Improvements Clauses Act, for example.

16. The Public Health Act, 1848. Other Acts

Systematic sanitary legislation, however, only began with the Public Health Act of 1848, the inspiration largely of Edwin Chadwick, the one-time private secretary to Jeremy Bentham. This Act provided for a General Board of Health, which was created for five years, and which was empowered to create Local Boards of Health having wide sanitary powers. Ten years later the powers of the Central Board were divided between the Home Office and the Privy Council acting through the Board of Trade. By the Public Health Act of 1872, in urban areas the sanitary powers were vested in Local Boards, the Boroughs, and Town Improvement Commissions; whilst in rural areas the Boards of Guardians became the sanitary authorities. In 1882, when the Municipal Corporations Act reconstructed local urban government, sanitary powers were vested in the Borough Councils; and in 1894, in the counties, the sanitary powers of the Guardians were transferred to the Urban and Rural District Councils.

17. The Public Health Act, 1875

Our present sanitary code is based upon the Act of 1875, which consolidated all sanitary legislation of the previous thirty years, and which imposed further responsibilities on the Local Boards that became the Urban District Councils in 1894. Under the provisions of the Act the authorities concerned must regulate and provide sewers and drains, cleanse streets, highways, and ditches, inspect lodging-houses and food, regulate nuisances and offensive trades, provide a water supply, and employ means for the prevention of epidemic diseases.

Between 1889 and 1901 several measures were passed relating to infectious diseases. Compulsory notification of infectious diseases became law, and Isolation Hospitals were established. Between 1908 and the outbreak of the War, maternity and child welfare work and anti-tuberculosis work were added to the Public Health services.

18. The Housing of the Working Classes

Like Public Health Legislation, Housing Reform was necessitated by the insanitary conditions of the new towns which sprang up like mushrooms during the Industrial Revolution in which the modern slum was created. Housing reform of working class dwellings may be said to date back to 1841, when the Metropolitan Association for Improving the Dwellings of the Labouring Classes was founded. Both Lord Shaftesbury and Prince Consort showed interest in the movement, and in 1851 an Act was passed which allowed local authorities to provide municipal lodging-houses for artisans. In the same year common lodging-houses were brought under public control, and in 1855 the Nuisances Removal Act made it possible to limit overcrowding and to close houses certified to be unfit for human habitation.

About the same time, Acts were passed with the object of encouraging private builders to erect workmen's

dwellings, and in 1864 Ruskin and Miss Octavia Hill began their scheme of model rent collecting, and Peabody and Waterlow, their system of block tenements which by 1884 were housing over 25,000 people. The Torrens Act of 1868 was intended to assist the improvement of existing houses, but its success does not appear to have been marked, though the Liverpool corporation made some attempts at slum clearance.

The next measure of importance was the Cross Act of 1875, which conferred wide powers of building or demolition on local authorities. Chamberlain made full use of these powers in Birmingham, where he not only removed a congested area of insanitary houses, but also instituted a rigid system of building by-laws. A Royal Commission on Housing Conditions was followed by further Acts in 1885 and 1890, and by the end of the century loans amounting to nearly £2,000,000 had been raised for schemes of improvement.

The Town Planning Act of 1909, a landmark in the history of housing, was inspired by those creations of private enterprise, Port Sunlight, 1887; Bournville, 1889; and the Hampstead Garden suburb of 1904. The main provisions of this Act conferred powers on local authorities to buy and develop land likely to be used for building purposes, to limit the number of buildings per acre, and to determine their height and general form.

To what extent this Act and the Budget of that year checked the speculative private building of small houses it is difficult to estimate, but by 1912 signs of a housing shortage had begun to appear, and the total cessation of house building during the war years compelled the State to assume almost full responsibility for the housing of its working population after the Armistice in 1918, with the result that most of the greater municipalities have invested huge sums of public money in the development of suburban housing estates.

4—Health and Unemployment Insurance

19. Social Insurance

Out of the problem of poor relief developed two modern social services, Health and Unemployment Insurance. The question of prevention of pauperism rather than of merely granting relief is as old as the Tudors; it was at least one of the fundamental principles of the Statute of Artificers. With the great advance in specialisation of labour and machine production during the Industrial Revolution, the problem of unemployment assumed its modern form. The first concrete proposals for the State alleviation of the evils of unemployment unattended by social disgrace came in 1848 from Louis Blanc. These proposals were adopted in substance by Bismarck to remove the sting from the growing power of socialism in Germany, and they formed a pattern for the Lloyd George measures in the Liberal Government of 1906.

Old Age Pensions came first. The social conscience was awakened in the last quarter of the nineteenth century by the researches of Charles Booth, and the speeches of Joseph Chamberlain. Largely as a result of Chamberlain's influence a Select Committee on Provident Insurance was appointed in 1885, and a Royal Commission on the Aged Poor in 1893. The House of Commons voted in favour of the principle of provision for the aged poor, but the troubles in South Africa shelved the matter.

A radical change of government in 1906 brought the question again to the front, and the first Old Age Pensions Bill became law in 1908. The State granted a pension of 5s. per week at the age of 70, to all British subjects having resided 20 years in England, whose means did not exceed £21 per year. In 1911, slight concessions were made to married couples, and the qualifying period was reduced to 12 years.

National Health Insurance became law in 1911. The

Lloyd George scheme on a popular and compulsory basis applied to the whole industrial population with certain exceptions and exemptions. The cost was shared by the employees, employers, and the State, and the Act provided for medical treatment, sickness allowances, maternity benefits, etc.

The first experiment in unemployment insurance was also made in 1911. The Act applied only to trades in which employment fluctuated a great deal—the building, shipbuilding, and engineering trades. The benefit allowed was 15s. per week, with a maximum insurance of 15 weeks per year. The Act was administered through the labour exchanges which had been previously established in 1908.

CHAPTER IX

THE HISTORY OF TRADE UNIONISM

1. Wages

In early times all men derived their livelihood from the land; food and shelter were obtained directly as a result of their own efforts. Later, when specialised employments appeared, workers were paid customary wages; but still they could easily go back to the land if they wished, so that their remuneration would never fall permanently below that of their fellows. In civilised countries division of labour was always carried so far that a large part of the population worked for wages or their equivalent. In Roman times the slaves had to work as their masters commanded, and they were fed and lodged directly, without intervention of money, in such manner as the lord should decide. As status changed from slave to serf, *e.g.* in early English times, the dependent was still obliged to pay labour dues, but yet otherwise he was his own master economically; again, he obtained his living directly from the land. We saw how the cottar developed into the agricultural labourer; the wage system had now come.

Wages in all times are governed by three factors: by the customary standard of life in the class affected, by the power of the workers, political or economic, and by the action of demand and supply; individual differences in remuneration always have occurred, but for our purpose may be neglected. In a stationary state, or when there is abundant land, *e.g.* in new countries, or open spaces like Central Asia, the effects of demand and supply will mainly depend on the seasons, on wars, or on pestilences, and their variations over a wide period may be neglected; wages are then governed by standard of life and the power of the workers.

(1) CHANGES IN WAGES. The pay of the worker shows, then, movements accompanying great political or other changes, while a steady change in the habits of the people gradually alters customary levels. In stationary times there is little economic discontent; one class may be ground down, but then it has known no better state with which to make a comparison. Altering conditions either show one class how it may improve its state or else bring changes affecting another section adversely. In either case there may be discontent, and an attempt to raise wages; the basis of the claim will be either that the customary remuneration, *i.e.* the normal or " fair " wages, is not being paid, or that conditions have so altered that such wages are unjust. The worker is thus sometimes conservative, sometimes an advocate of change.

We saw an instance of movement when we showed how the gradually increasing population brought forward a larger army of craftsmen than could be absorbed by the more exclusive gilds. Thus the journeymen certainly tried to improve their position at the expense of the master craftsmen, just as, earlier, the craftsmen had possibly attempted to break down the monopoly of the merchant gildsmen. The discontent inspired an attempt to raise or maintain the standard of living during a time of changing conditions.

We noticed that about the beginning of the eighteenth century industry became more definitely capitalistic. Now the workers sold their products to those who could afford to wait till the goods were disposed of, receiving money in payment. This money could buy the necessaries required, and these had been obtained by the work of other independent labourers. Hence the lower classes began to lose direct contact with the means of production; their masters lost the arts of their ancestors and lived by selling the work of others. Payment could no longer be made in the guise of necessaries, and money as an intermediary had to be used.

(2) NECESSITY OF CHANGE. Customary payments were not altogether satisfactory. In the old days the value of the wages given was at once recognised; now money was a counter and its real value varied. Payment to those who obtained their necessaries indirectly was thus largely guesswork. A new principle had to be evolved. All the signs of the times pointed to change in one direction. A mere increase in capitalism would in time have effected the change to modern conditions. Formerly the master and journeymen were closely connected, and one might pass naturally into the other. The new feature of capitalism was a divorce of the master from his employee, both becoming more specialised. At first the middleman, often a craftsman, would be closely connected with his fellows; we saw how he became an *entrepreneur* with the worker dependent on him.

Capitalism alone did not actually create the change; it was the Industrial Revolution which suddenly altered the position. Now the worker became not only inferior to his master, but personally cast loose from him. The workers were units, machines, whose business was to make money for the masters. Such a proletariat could not be paid on the same principle as a mediaeval serf. The worker was still dependent, but on capital, not on a person.

(3) DECAY OF THE STATUTE OF APPRENTICES. The Statute of Apprentices was no longer applicable; justices could not fix wages in such changing times. The Law of Settlement also gradually became a dead letter. The logical conclusion was that as a man was treated like a machine, his cost should be governed similarly. A man's labour was bought as cheaply as possible, while the amount an employer would pay for him was limited by his productivity. The sudden inrush of workers destroyed stability, so that wages were governed by demand and supply, tempered by the political power of the parties concerned;

the employing class could pass or retain legislation to further their own interest. Master and man were no longer part of one family, but a deadly opposition came into being.

Further, ties of common interest were severed. If a mediaeval lord had a few dependents, to whom (in those days) he was almost confined, it was to his interest to treat each one individually with some consideration. After personal ties were snapped the master became all-powerful, because, being master of so many dependents who were unorganised, he could oppress each individually; the more men he employed, the more powerful he was personally, and the weaker were his men individually. If the dependent was dissatisfied, he could not apply pressure, because in these times of increased mobility it was easy to obtain labour; children of paupers would serve the purpose.

The employers, again, were monopolists as against the hand-weavers. These were doomed, and none but rich men could use expensive machinery, while the law of increasing return tells us that the largest manufacturers had an advantage. The factory hands, bereft of their chance of individual work, of their holdings and their waste lands, had to follow their masters' lead; money was all-powerful, while the ablest men became employers in those changing times. The struggle was unfair; on one side was ability with capital, on the other average men dependent on their weekly wage.

(4) Political Hopes. Economically, then, the men were in subjection; their one chance was political (or administrative). Unfortunately, the ideas of Adam Smith, which had hardly permeated the people, were now used as weapons against the working classes. Smith saw the ill effects of the mediaeval regulations on the slowly progressive life of his period; he did not foresee the Revolution. His main thesis was the non-efficiency of governmental inter-

ference. Now that the times were changed, the employers eagerly supported the principle, while refusing to carry it out to its logical conclusion. The ideal was perfect competition for the employers, and subjection for the workers.

Hence just at the time when the old regulations might have eased the difficulties of transition, they were ruthlessly thrown aside. The aim of the workers was to obtain fair wages by the help of the magistrates, and if a strong administration had fixed remuneration throughout the country, it is possible that some of the miseries might have been spared, at some loss to the employers, especially as our inventions and our coal supply had put us ahead of our rivals. The workers would have been more willing and less sullen, while a better standard of life would have increased efficiency.

An attempt was made by Whitbread to convert Parliament on these lines, but it was fiercely opposed by the employers, who wished to become rich quickly, and by the classical economists, who took a long view of society while underrating the effect of present changes. They held also that an enforced increase of wages would mean higher prices and more unemployment. Parliament was in doubt as to its true policy, but finally inclined to the side of progress; enforcement was difficult. Money had to be raised for our numerous wars; England could only become a rich country quickly by cheap labour.

One hope only was left to the workers; they might combine. Though any individual was quite in the hands of his employer, if all the workers acted together at one time as one man, the struggle could be carried on more equally. Logically this was the economic weapon of the operatives; it made real competition and the play of self-interest possible. This method of defence was inevitable; Trade Unionism became a force, and the more effective as the concentration of men in the towns made combination easier.

2. Relation between Trade Unions and Gilds

It is natural to suppose that Trade Unions are descendants of the old gilds, but there is no evidence of continuity in any single case. The old gilds still persist in London as the City Companies, and yet they have never had the slightest connection with the later trade unions. The gild member was not an ordinary workman; typically, he was a leader of his trade, and in later times was a merchant rather than a dependent. The journeyman, indeed, corresponded to the modern artisan, but until the latest times there was always a chance that he would rise to be a master; hence any attack he made on the gildsmen might recoil on his own head later. Again, there was an essential difference, in that formerly the worker had a direct interest in the sale of the article and the buying of raw material.

Certain real analogies there are. Strikes, of course, have been known from times immemorial, but these were accidental. In early mediaeval times certain wandering artisans, *e.g.* masons, of the lower classes, sometimes became dissatisfied and combined against their consumers (not their masters) for better conditions. There is some evidence of the existence of a kind of natural trade fraternity among the masons. Sometimes combinations were made even against the masters, and might last for years. Peculiarly enough, these seem to disappear after the fifteenth century, so there can be no direct connection with the modern strike. When they did develop, these combinations ended in the formation of gilds to protect their members against the consumer.

Again, the modern trade union is, above all, a class organisation, but we saw that the gild members were often also the City Governors. The gild protected the trade as a whole against outsiders, and generally the town against the country. It represented rather the modern employers' association.

Resemblances do exist. First, both gilds and trade unions are permanent associations for the purpose of maintaining and improving the conditions of employment. Again, both originated in an attempt to solve the problems involved in the breaking up of an old system; both wished to maintain the standard of living.

We may say that there is no real evidence of the existence of a modern trade union before the eighteenth century. Population was increasing in the West and manufacture improving, and the factory system was beginning. In the sixteenth century the progressive manufacturer had been discouraged, and the owner of too many looms or of machinery likely to displace labour was penalised. The workers thought that this system would always persist, and they looked to Government for protection in the early eighteenth century, though in 1717 the workers began to form unions in Gloucestershire, etc., alarming their employers. Three years later there was similar trouble among the journeymen tailors.[1] In these early times there were no troubles either in the big towns, *e.g.* London, or in the West Riding, which still held to the domestic system, showing that the root cause of unionism was the separation of the worker from all the processes of production and sale. Hence unionism progressed rapidly when the factory system was fully developed. Strikes between 1760 and 1770 were many and violent.

Unionism was not at this time a rebellion against impossibly harsh conditions; the condition of the working classes was almost at its best. It was those workers who could look back on a long record of successful gild regulation who now wished to improve their position. Their forefathers had benefited greatly by apprenticeship and other methods of limiting competition on the part of inefficient and untrained workers; again, unionism was an

[1] Part I , Chapter V.

evidence of strength of character and of independence impossible in an oppressed population. The aim, in fact, was to prevent the employers buying labour in the cheapest market, when the craftsmen possessed skill and had undergone apprenticeship.

3. Legal Position of the Workers

For a time the weavers kept their legal position; as late as 1756, after a petition by the West Country weavers, the Woollen Cloth Weavers' Act was brought in which commanded the fixing of wages by the justices. Within the year the employers had made a great outcry; they pointed out that the wages arranged were impracticable owing to the growing competition of the West Riding, and the Act was repealed.

Unionism grew in the towns, still with the primary object of conserving old wage systems, and the struggle with the *laissez-faire*, free contract theories of the employers was continued in the Courts. Men combined to sue their masters, but the Courts were generally hostile; either the men lost and had to pay heavy costs, or else the employers had to submit without costs. In either case the men could not continue the struggle, and the attempts subsided.

If modern unionism entered industry through the West of England clothing trade at the beginning of the eighteenth century, it spread rapidly, despite all attempts of the government to suppress it or to drive it underground, all over the country, though often in disguise. In the second half of the century there were combinations of framework knitters in Leicester, and amongst the cutlers of Sheffield, as well as amongst hatters, cordwainers, curriers, brush-makers, basket-makers, calico-printers, cotton-spinners, coopers, sail-makers, coach-makers, smiths, bricklayers, and carpenters. At the end of the century the wool-combers of Nottingham were very powerful; indeed, in 1794 the manufacturers declared that they were at the

mercy of their combers. The cloth-finishers of Yorkshire were also strongly organised, the branches in the various towns being governed by a Central Committee.

The Government, largely capitalistic, was definitely hostile to this movement. This is shown in the Glasgow case, where the men had combined to resist a fall in wages, and legislation resulted which bound the employers to pay wages according to scale. These refused, and the result was a strike in the cotton industry stretching from Carlisle to Aberdeen. As the employers were preparing to meet the men the Government stepped in and arrested the leaders. In fact, mediaeval central interference in trade had ceased. In 1813 the power of justices to fix wages was ended by Statute, and the next year saw the legal overthrow of the older legislation in the abolition of the necessity of apprenticeship. In theory the Government was committed to a *laissez-faire* system.

4. New Capitalistic Masters

As the domestic masters died out, the employers became solidly capitalistic in feeling as in fact; the workers being without political power, were divided. Unions were formed spasmodically, without reference to other districts or trades; the notion of the members of a trade as forming a family had not quite disappeared, vertical cleavage still existed. Employers were fewer and had better opportunities of knowing each other personally.

Retracing our steps, we notice that after about 1760 unionism becomes much more important, while it does not alter in character. Here, again, was another revolution parallel to, and largely caused by, the changes in industry. The most important factors were the focusing of the population in the towns, and the almost absolute divorce, and therefore enmity, between capital and labour.

The first effect of the Industrial Revolution was to drive the workers to Parliament for protection against the

debasement of their standard of life. But a revolutionary change was coming over the opinion of the classes who formed the House of Commons. From 1753 onwards the history of the workmen's appeals for assistance is a record of rebuffs with the exception of the Spitalfields Acts of 1765 and 1773, and with the publication of Adam Smith's *Wealth of Nations*, the day of paternalism was gone beyond recall for over a century.

The workmen began to accept the situation, and long before the Acts of 1813 and 1814 had considered another method of improving their condition. Numberless opportunities of meeting together resulted in concerted action; the lower classes also began to have more belief in *laissez-faire*. If the employer could engage or dismiss them at will, either individually or together, and if he could restrain trade and stop work by suddenly dismissing all his hands, surely they could combine to do the same thing. The employer was equal in power to the whole of his men together; this was unfair. Economically, their case was sound.

Unfortunately, combinations in restraint of trade or contrary to the public policy were against the common law. This at first was not realised, and each disturbance was dealt with on its merits. Later, combinations, whether of masters or men, were liable to criminal prosecution, but in practice the former were treated leniently. At all times, a combination was perfectly legal if it contented itself with trying to enforce the law of the land, *e.g.* when unions persuaded justices to fix wages.

5. Effects of the French Revolution

The French Revolution had immediate reactions on English thought. It evoked Tom Paine's *Rights of Man*, a plea for democracy, for equality and fraternity between man and man. Paine's pamphlets quickly aroused a cry for reform among the working classes, and in 1792 Thomas

Hardy founded the first working-class political association in England, the London Corresponding Society, which had for its objects, manhood suffrage and parliamentary reform. The rapid growth of similar societies among the working men of Britain alarmed the Government, and in 1793 two Scottish Radicals, Muir and Palmer, were transported for a long term of years. In the following year the Government struck at the London Corresponding Society, and three prominent leaders, Hardy, Horn Tooke, and John Thelwell were imprisoned, and stern repression began. The Corresponding Societies were political associations, not trades unions, but the middle classes were too alarmed to make clear distinctions, money was wanted to fight the French, and this could only be forthcoming if industry prospered; employers saw their chance of making fortunes. Fear of anarchy, begot of the reaction after the French Revolution and natural selfishness, coupled with a misunderstanding of the economic principle of *laissez-faire*, all combined to keep down the workmen. Strikes restrained trade and were opposed to public policy; higher wages meant less profits, while the pessimistic economic teaching seemed to show that the workmen could not hope for better times. The masses were looked on as dangerous beings.

6. The Combination Laws

The result was that by the Corresponding Societies Act of 1799 all national associations with corresponding relations with local associations were declared illegal; and in 1800 Combination Acts were passed suppressing all forms of Trades Unionism by law. The Combination Acts hurled the English working classes into the lowest depths of degradation. In one sense, of course, they were not new. Similar instances may be traced back to the fourteenth century, and associations in restraint of trade (on the part of workmen) had always been treated as contrary to the

principles of English Common Law. But the Act of 1800 was not only more comprehensive than any previous measure; it was also more rigorously enforced, and to make the position worse, the workmen could no longer rely on the former protection afforded by Parliament; any person found guilty of combining to advance wages, to diminish the quantity of output, to affect or control masters, was sentenced to three months' imprisonment.

The consequences of these Acts may be readily inferred. During the first quarter of the nineteenth century the history of labour is simply a record of persecution by the employers, of reprisals by the workmen, and of ruthless sentences in the courts. Any concerted action which could be construed to be in restraint of trade was sternly put down; if the object was to affect wages, the men were questioning the authority of the justices and were held to be practically rebels. Place describes the sternness of the methods of repression, when in 1810 Sir John Sylvester condemned 19 printers employed on *The Times* newspaper to terms of imprisonment varying from nine months to two years for combining and conspiring to injure their employers by quitting their work on account of their demands for an increase of wages not being acceded to. A few years later, seven scissor-grinders of Sheffield were imprisoned for three months merely for belonging to a society called the "Misfortune" Club, which gave out of work benefit and tried to keep up the customary rate of wages. The case of the Bolton weavers was even worse. In 1818 a number of delegates met, on the suggestion of their masters, and decided to demand an advance of wages. As a result, three of them were arrested on a charge of conspiracy and severely punished in spite of the fact that they were supported at their trial by their employers.

After the Peace, the trade depression led to employers' combinations to lower the rate of wages. In 1819 the famous Six Acts, though political, had some effect in

suppressing meetings and putting a heavy stamp duty on workmen's publications. These Acts caused an outcry against tyranny as such, so that attention was drawn from the Combination Laws in particular, to attempts at political reform.

In spite of the Combination Laws, trades unionism was not crushed out. Combinations persisted in secret, especially in London, and at the time of the repeal in 1824 there were trade societies, often quite powerful, existing in practically all the chief handicrafts. Curiously enough, during the operation of the Acts, there appears to have been no strong popular movement for their repeal. For one thing organised opposition was practically impossible, as the workers had no voice in Parliament. The absence of communications, too, prevented a knowledge of the sufferings of the Lancashire cotton operatives from reaching the miners of Northumberland, or the cabinet-makers of London; hence a spirit of class sympathy and consciousness was difficult to develop. The grinding poverty of the masses was also calculated to produce the apathy of despair. It was left, therefore, to Francis Place to remove the ban on trades unionism.

7. Francis Place and Joseph Hume

Francis Place (1771-1854) was a master tailor of Charing Cross, and a sympathiser with the working classes. His methods were somewhat unscrupulous, but he generally achieved his object. He accepted the necessity of wire-pulling and flattery in politics, and became an expert in such management. For many years he had prepared the way by preaching his views, and had made two important converts, McCulloch and Joseph Hume (the Radical leader), while his London shop was thronged with agitators. The Scotch economist was an important ally, but Hume was a man after his own heart. The latter had much power at Westminster and was expert in Parliamentary methods.

In politics Place was a Radical Individualist; accepting the *laissez-faire* creed of the employers, he showed that it could be used to improve the condition of the workers. When the time was ripe, in 1824, Hume asked for a Parliamentary Committee on the export of machinery, together with an inquiry into the Combination Laws. A direct attempt to discuss the question would have been defeated, and the laws were regarded by the statesman Huskisson as a side-issue. Hume took advantage of the lack of interest shown in a supposedly unimportant subject and carefully packed his committee.

The Resolutions were carefully prepared by Hume himself, and the questions asked were arranged to bring the required answers. The result was that the friendly committee-men brought out the Report which Hume wanted, recommending freedom of trade for machinery, and the repeal of the Combination Laws. A Bill with this object, legalising societies and permitting strikes, was quietly smuggled through Parliament without open protest.

Place and Hume had achieved their end, but the penalty of their smartness had to be paid. Employers and legislators were aghast; more important, the working classes thought that the Bill was a voluntary concession on the part of Parliament; they thought that their masters had admitted their tyranny in the past, and that their own drastic strike methods were now justified. The natural result was a sudden epidemic of strikes and these were too often accompanied by outrages.

Place and Hume saw the danger and advised moderation, but the men were excited and could not be held. Most of the strikes failed because it was a time of depression; the employers were not sorry to see their looms idle, if their opponents were weakened. The result was an outcry against the men and another Parliamentary inquiry.

The new committee was packed by the Government; this time it reported irritation and distrust among the employers.

The evidence of these was eagerly listened to, and if they had had their own way the trades unions would have fared badly. Place continued his outside propaganda, while Hume spent all his energy in weakening the case of the employers in Committee; the result was that something was saved out of the wreck.

8. The Act of 1825

The Bill of 1825 repealed that of the former year and embodied all the former statute law in itself. The Act of 1824 had removed all criminal liability of combinations for advance of wages, or alteration of hours of work, and even apparently legalised violence and intimidation. The Act of 1825 left the immunity from criminal liability, but created two new offences of molesting and obstructing, punishable by imprisonment. With these limitations, which were capable of wide interpretation, combinations to affect wages or regulate hours of labour were legalised. The workmen could now also withdraw their labour as a body, *i.e.* could strike.

The immediate effect was not satisfactory. A financial panic was followed by four or five bad years, and strikes were unsuccessful. Yet the way was clear. The end of the decade saw a new theory of unionism. Employers had combined and were still powerful; workers were divided. Hence grew the conception of a trades union which should contain all the workers of the country of all trades, actuated by a common motive. Complete solidarity was the ideal. (Distinguish Trade Union from Trades Union.)

In 1829 the Lancashire Spinners sent delegates to a meeting and the result was the Grand General Union. Though it soon disappeared, it cleared the way. Next year the National Association for the Protection of Labour was formed by Doherty, who was carried away by the federation ideal. This inspired the *Voice of the People*, a weekly newspaper pretending to a circulation of 30,000, in spite of

the stamp duty. This union fell away. The General Trades Union, at first a builders' combination, followed. It became arrogant in its manner to employers and these showed resentment. The union demanded certain conditions and the masters answered by a ban on unionists, finally winning the day. This widespread union also disappeared.

9. The Eight Hours' Day

In 1833 there was an agitation for an eight hours' day; Owen, the great idealist, inspired the Grand National Consolidated Trades Union to further his schemes. In a few weeks the membership reached half a million, including agricultural labourers. It carried out a strike policy, and this led to its final overthrow after the " Derby turn out." Its methods were what are now called syndicalistic. This Union was the culminating point of Trades Unionism.

Its weakness lay in the fact that too much was attempted. The horizontal cleavage between master and man was well marked, but there was too much jealousy between different classes of workers. Each section was bent on its own aims, while syndicalism requires a devotion to the common interest. There was too little central control, while the ideals of the union were not carried into practice.

Robert Owen (1771-1858), born in Lanarkshire, showed the strength and weakness of this idealism. When attacking existing institutions he was doing good work; he was even more successful when pointing the way to future progress and in presenting higher points of view to his followers. His weakness lay in the fact that he could not distinguish what was theoretically good from the immediate aims. He thought that socialism, to be reached through syndicalism (as it is called to-day) by a general strike, and then co-operation, was possible and easy. In short, he was impracticable.

Owen gave a fillip to progress in unionism as regards

method, but the premature attempts led to a reaction and a return to older ideals. He showed the potential strength of the working classes, and the Trades Unions formed a basis for future work; experience had been obtained, and the new sectionalism started higher than the old. The middle and upper classes were thoroughly frightened, and particularly because farm labourers had been affected for the first time. These were more unprotected than the North Country mill hands, while it was still possible to crush unionism in new directions. Hence resulted a new repressive policy.

10. The Dorsetshire Martyrs

In 1831 a Parliamentary report, prepared by the economist Senior, was adverse to the workers, though no legislation followed. Three years later, Lord Melbourne, replying to a deputation of employers, showed his sympathy and hinted that they had a power of redress. Hence prosecutions of unions began under various legal pretexts. Then the country was stirred. Six labourers of Tolpuddle, in Dorset, joined the Grand National, as their wages had been reduced. It was necessary to administer an oath; under an Act of 1797, passed during the Nore Mutiny, illegal administration of an oath was punishable, though this law was practically obsolete. Under it these Dorsetshire Martyrs received the savage sentence of transportation for seven years.

A great demonstration was held in London; Radicals through the country supported the labourers, pointing out that the administration of the oath was the sole legal offence, but the Government eagerly supported the judge, and the victims were sent away.

This prosecution, together with the failure of the strikes, caused the downfall of the Grand National. Trade unions now dropped the practice of giving oaths; the effect on recruiting was practically nil.

Interest in Trades Unionism again waned, and the workers turned once more to political matters. William Cobbett (1766-1835) had been the Radical leader. He had great power of invective and exposed the weakness of the governing class. His ideal was to give political power to the masses, trusting to circumstances for economic improvement. Owen saw further than Cobbett; he saw that industrial organisation had altered. Chartism began to take the place of Owenism; one thing was certain, the masses could not be repressed: they simply developed powers of resistance in other directions.

11. The Relation of Trades Unionism to Chartism

Trades Unionism was not now identified with Chartism, as earlier it was with Socialism. The first developed independently, resulting partly from the trade depression after 1836. The early forties saw a new departure. Unionism revived because it gave up its impracticable aims; such amalgamation as there was occurred between the workers of a single trade throughout the country. A new spirit arose; each problem was treated singly. Where the law was favourable, full use was made of it, where adverse, attempts were made to alter it. Large sums were collected, used partly for friendly benefits and partly for strike purposes. It was seen that a paid secretary was an advantage, and often the principle was extended to the whole of the executive. Each trade studied its own interests, apart from those of labour as a whole.

This movement was a continuation of that before 1800, but knowledge and experience had been gained. The workers now accepted capitalism as an accomplished fact, and tried to turn it to their advantage rather than look back to old regulations.

As an example, we may note the work of Roberts, the "Miners' Attorney-General." The workers in the North-East had been legally oppressed because the masters knew

the law and could afford to fight in the Courts. Roberts gave his ability, and met the employers on their own legal ground with success. As a result, the position of the miners improved; they had combined to form the "Miners' Association of Great Britain and Ireland" in 1841 and were now very strong. Yet the strike policy was a failure, and the Association, after including 100,000 members, was disbanded in 1848. The "National Association of United Trades," a union of the older type, was similarly defeated.

12. The New Spirit: Trades Councils

After 1850 the new spirit really asserted itself. Trade expanded and the masses were better educated. The economic waste of strikes and their doubtful utility led to conciliation in certain cases. The London printers in their report advised moderate counsels, with strikes as a last resort; while the question of a fighting policy was to be decided by a strong central power. Certain definite aims appeared; the more fortunate workmen called for a limitation of apprentices, so that the price of labour should not be depressed by increased supply of workmen. Overtime was deprecated, while an appeal was made for shorter hours. An emigration fund, it was thought, would raise wages by lessening the number of workers. Salaried officials became the rule.

These aims were also found in the mechanical trades. In 1851 was founded the "Amalgamated Society of Engineers"; this also tried to limit membership to legally apprenticed workmen. Consequently next year a great lock-out occurred. Other societies were built later on the same model.

The next five or six years were more prosperous, and wage reductions ceased, so that Trade Unionism progressed quietly. A revival then occurred, followed by many strikes, near the end of the decade: this had the effect of again making the movement suspect.

Two types of federation have been noticed, *i.e.* the impracticable general amalgamation of all labour, and the union of workers in a single trade. A third type now became important, the Trades Council, though it had always existed in a temporary form. Trades Councils, representing all the trades in one district, grew up in the cities and in most large towns. Alterations in the law were strongly pressed; there was still legal inequality not only between employer and union but even between employer and single worker, though an Act of 1859 improved matters. Men could now combine to raise the wages of those not present at the meeting; peaceful and reasonable persuasion of " blacklegs " was not now held to be obstruction, as defined in 1825.

13. The Junta

The beginnings of the modern Labour Party were now seen. Place and Hume were merely sympathisers; now arose a group of actual workmen who stood above their fellows because of their ability. Allen, Applegarth, Guile, Coulson, and Odger were a group of five, forming the " Junta." They were bound by ties of friendship and politics. Their strength lay in the fact that they understood and accepted the employers' point of view; they were individualistic. They won the respect of Parliament by their character, their capacity, and their understanding of middle-class decorum and convention. They were cautious in matters relating to industry, giving most attention to political questions; they were Radical reformers. They were practical in aim, avoiding strikes; they tried to obtain by pressure from all employers those advantages which the best masters gave willingly. They obtained the confidence of the best of the working class, as of their masters, and their efforts met with success. The London Trades Council was the means by which most of their work was done.

Unfortunately the unionists in many districts pursued a less reasonable policy, and this period was one of danger for unionism. First, employers combined to form their own associations, and unions were fought by means of lock-outs. Next, the Sheffield outrages on non-unionists in 1865 and 1866 led to the appointment of a Royal Commission in 1867. A congress met to deal with the question from the Trade Union point of view, and it has continued to this day. The unionists themselves pressed for an inquiry, so that they could clear themselves of the charge of terrorism. The Junta obtained a fair Commission, and the Report was not unfavourable to unionism; in fact, greater liberty of action was advised. In the same year the Master and Servant Act was passed at the instigation of Allen and his friends.

The same year saw an important decision in the Queen's Bench. A local secretary had misplaced the funds of his society, but it was held on appeal that the union had no redress. Unionism was still held to be not quite legal, at least a " nuisance " in law, and defaulters could not be sued. In that year also the Reform Bill was passed, which enfranchised the town artisans.

14. The Act of 1871

All these things combined to make legislation a necessity. Apparently the unionists gained, but really they only obtained in law what they had possessed in fact, while a valuable privilege was taken away. The Trade Union Act of 1871 laid down that a combination was not illegal merely because it was in restraint of trade. Benefit Societies were protected by law, and could hold property. The Criminal Law Amendment Act, passed along with the Act, was, however, apparently framed purposely in ambiguous terms, and was directed against " picketing " or the persuading of " blacklegs," *i.e.* those wishing to take the place of unionists during a strike.

That year the Junta summoned a Trade Union Congress in London, and a Parliamentary committee was given the task of obtaining the repeal of the hated Act. All the ordinary methods failed; but in 1874 the congress allowed the candidature of thirteen of its representatives, and two of these were elected—the first Labour members. At the same time a new party came into power, and the Trade Union Acts of 1875 were passed.

First, an agreement by two or more persons was not held criminal if it were not criminal when committed by one person, so that at last a strike was perfectly legalised; a lock-out always had been permissible, being effected by one man. Next, picketing was legalised, with certain safeguards. Employer and workman were placed on the same legal footing. Registration was made similar to that in the case of a simple friendly society. It was still a misdemeanour to strike if human life was placed in danger or valuable property was damaged, and this gave a means of repression by the Civil Courts, used later.

The Act of 1871 preceded a wave of unionism, partly also caused by expanding trade. For forty years after the Dorchester sentence the labourers had remained uncombined; now Joseph Arch founded the Agricultural Labourers' Union, which soon included 100,000 members. In every trade numbers increased till about 1875, a high-water mark. Employers were willing to meet the demands of the men as trade was improving, and arbitration became a favourite means of settlement.

This did not last; employers themselves combined, *e.g.* in 1873 the National Federation of Associated Employers was formed, while the depression after 1874 was fatal. The farm hands were in a hopeless position. They were ignorant of affairs in the towns, and far from the central activity; suspicion was inevitable, and was fostered by their masters and the country middle class. The movement died down in agriculture with great rapidity.

15. Successful Strikes

This was an era of successful strikes. In the last decade the Yorkshire miners had obtained an important concession in the appointment of a checkweighman, who supervised the weighing of the coal sent up from below, while the Lancashire cotton operatives had obtained a new piecework rate system and a legal working week of 56½ hours for women, which in practice has affected men also. The masons in some towns had won the nine hours' day. Now (1871) the Sunderland engineers aimed at short hours, and won their point after a five months' strike. The strikers in the Newcastle troubles enlisted the sympathy of the public, and won their case. The concessions made by the master engineers were given throughout the country, very often after the mere threat of a strike.

This prosperous period of unionism in many ways resembled that of 1830-34. In both cases the progress was rapid, while the Co-operative Production schemes somewhat resembled those of Owen. The chief contrast lay in the fact that men now only demanded a share in unusual profits, instead of attempting to abolish capitalism. The men were converted to the employers' point of view that a minimum wage was impracticable, while wages (like profits) should rise and fall as trade fluctuated. Conciliation Boards resulted from a more reasonable attitude of the employers. Naturally, the new opinion caused friction among the trade unionists.

16. Depression

Depression followed expansion. The employers were not sorry to have the chance of reducing wages and of regaining their control; there was no reason why their mills should work at full time, as they had much unsaleable stock on their hands. Hence the result was a series of unsuccessful strikes; the men had not yet learnt not to strike in a falling market. The workers lost the day in a great conflict in

1878 and 1879; but the latter date was the lowest point reached by unionism, and a revival occurred the next year.

Trade Unionism was continuous during this bad time. Many small societies were ruined, but the strongest survived. It was a period of quietness as regards policy. The congress had spent all its force by 1875 in furthering legislative proposals; in the next ten years meetings were uneventful; vitality was again shown by the conflicting sections. Gradually the influence of the Junta and of London trade unionism as a whole weakened, while a new demand for a minimum wage and for legislative interference took place.

The improvement in trade soon passed away and another depression occurred after 1883. The masses had obtained political reform, they had got Free Trade, they were well organised in unions, and still their lot was unsatisfactory. Liberalism was thought to be disappointing, and the socialistic ideas of Karl Marx and his English followers spread rapidly. The country as a whole was against the innovation; Unionism itself was divided, so that the " New Unionism " at first had a hard fight. The analogy between gilds and unions must not be pressed, but there have been similarities in working practice; like the older combinations the unions had become aristocratic, aiming at benefiting a limited and defined number of men. Now, the worst-paid labourers demanded admission.

17. The New Unionism

The new movement was born in the depression after 1883. The spread of Marxist ideas after the foundation of Hyndman's Social Democratic Federation prepared the way for transition from the old to the new unionism. From 1850 to 1885 trades unionism, which was practically restricted to the skilled craftsmen, accepted the *laissez-faire* individualism of Gladstonian Liberalism and confined its activities mainly to Friendly Society benefits. But

with the spread of socialism after 1884, a new spirit was aroused, and the condition of the unskilled labourers and sweated women attracted the attention of the socialist wing of the labour movement. The strike policy was again to the front. There was a tendency to keep separate the two portions of a typical union (friendly society and trade union proper), and to use contributions for strike purposes only. Collectivism, more practicable than Owen's communism, in which the workers should own the means of production, was the ideal; State interference with wages and hours of labour was looked on as a means to this end. Unionism tended to be cosmopolitan; communication with foreign unions was desired. The first International Congress of Trade Unions was held in 1888 in London.

In 1888 the match-girls struck in London. These were absolutely without money or organisation. Yet public opinion was so stirred that the employers had to give in. This marked a new phase in industrial conflicts; now each side tried to enlist the sympathy of the people. In 1889 the Gas Workers' and General Labourers' Union was formed, and within a few months the London Gas stokers won an eight hours' day. Immediately following this a sudden stoppage at the South-West India Docks heralded the great dock strike under the leadership of John Burns, Ben Tillett, and Tom Mann, for the "Dockers' Tanner." For ten weeks London's trade was held up. Help poured in from all sides, even from Australia, and the men won a great victory; this was the first great successful strike of unskilled labour.

Naturally, the result was a new wave of prosperity for unionism, and in less than a year 200,000 unskilled labourers were brought into the trade union ranks. The workers were bound more firmly together and began to possess a common class feeling; the spread of socialism was a natural result. These new unions, similar in many respects to the organisations of Owen's day were militant bodies

with low contributions and small friendly benefits. In this respect they differed widely from the older unions. There was also a movement to greater unity, and various federations were formed, while Trades Councils sprang up all over the country.

It was now the turn of the masters also to protect themselves. In 1896 the engineering employers formed an association which next year beat the Amalgamated Society of Engineers in a big strike. In 1899 the General Federation of Trade Unions was formed. At first the association was governed from each centre in turn, while all the units had equal power; but later, as business increased, paid officials were appointed to work in a permanent centre; in some cases representatives were elected from the branch societies. The aim of the General Federation was to use its powers to help any union in difficulty. Such large combinations formed means of communication with foreign unions.

The origin of the Parliamentary Labour Party goes back to the election of 1892 when Keir Hardie, John Burns, and Havelock Wilson were returned. In 1893 the Independent Labour Party was founded at Bradford by Keir Hardie and ran 28 candidates in 1895, none of whom, however, were successful. By 1899 the Trades Union Congress had become converted and it was decided to form a distinct labour group in Parliament to promote legislation in the direct interests of labour. Fifteen candidates were nominated by the Labour Representation Committee in the General Election of 1900, but only Keir Hardie and Richard Bell were successful.

The new century saw the rise of the Parliamentary Labour Party in 1906 when a compact group of 29 candidates were returned. It also saw two judgments by the House of Lords. A general order in 1883 had laid down that where numerous parties had the same interests in the same cause at the same time, one member could sue or be

sued for the benefit of all. A strike was still illegal if it endangered valuable property; but in a case held in 1893 it was held that trade unions were not liable for damage. This judgment was overruled by the Lords in 1901, and in the Taff Vale case it was held that by the intention of the Trade Union Act of 1871 a union might be sued in its registered name, so that its funds were liable in case of a civil action.

18. Recent Legislation

A Royal Commission in 1903 decided in favour of an alteration in the picketing law, but supported the Taff Vale judgment; the Trades Disputes Act of 1906 set this aside, also legalising peaceful persuasion. The Lords in the Osborne judgment decided that trade union funds could not be legally used for political purposes. Thus the Labour members in Parliament had to depend on voluntary contributions, which were not forthcoming in sufficient amount. An agitation for the reversal of the judgment followed, but the introduction of the payment of members has lessened the grievance.

The years 1905-7 saw a large increase in membership, but a slight drop followed; since 1910 numbers have again increased. The total membership increased in the last decade by about 25 per cent. to nearly two and a half millions in 1910, though the number of unions fell almost uninterruptedly.

Conciliation has developed in the last period both in practice and in machinery, as it had done between 1860 and 1880, when Conciliation Boards became common. The employer sees that strikes are wasteful to both parties, and that arbitration will save much money and trouble with no loss of personal dignity. Again, a union in the last half-century has not been by any means the enemy of the masters. It has done much hard work of supervision and applied pressure to the lay workers more effectively than

the employer himself. The union did the work, in one direction, of the gilds, and knew the circumstances better than the master.

The union organises the relation of master to man, so that small difficulties, *e.g.* conditions of employment, become less important. Again, the employer may hire his labour for long periods, and by this means unemployment is lessened. The good employer is protected from unfair competition. Strikes, costly though they are, are avoided when possible; the fear of them exerts pressure on employers in good times.

Wages are largely settled by arrangement, while disputes are often submitted to an arbitrator. In disputes the Board of Trade might (after the Conciliation Act of 1896) offer its assistance, which has been of immense use in some recent cases. Such conciliatory advice is voluntary, and the tendency in some strikes, *e.g.* the great railway strike of 1912 and the dispute in Dublin (1913), has been to refuse such help. Unionism again became more aggressive, and the rise of Syndicalism recalled that of Socialism after 1881.

19. The Policy of Trade Unions

(1) A Twofold Policy. At all times the policy of trade unions, apart from sick and unemployment insurance, has been twofold. They have tried to control economic change so far as it affected them, and they have attempted to obtain the best terms for labour. The workers threw aside the theory that inventions should be judged on their final effect only; they saw the immediate distress. Gradually they understood that such progress benefited labour; they then exerted an influence for good in delaying and thus smoothing the change.

The other policy has been one of self-defence. A man in a weak position was at the mercy of his employer; in combination with his fellows his weakness was disguised.

It was more easy and satisfactory for the employer to bargain with one man than with many separately, and such an agreement was more likely to be binding. The employer could not single out certain men and oppress them. The representative who was elected to make agreements was specially qualified and generally possessed much knowledge of his trade; as a responsible man, his employer probably listened to him. Above all, combination by forming a reserve fund made it possible to fight the employer on more equal terms.

(2) THE VALUE OF STRIKE POLICY. Past experience has not exactly defined the value of a strike policy, and economic theory is also somewhat wanting, as the human element is a disturbing factor. In the early nineteenth century it was held by most economists that the wages of labour tended to a subsistence minimum and that poverty was unavoidable. Hence unionism was opposed by employers, by Government, and even by clergymen, as evidence of discontent with a state which could not be improved. The wages fund theory followed. In its crudest form it stated that wages were determined by the relation of remunerative capital to labour; this is obviously true as a matter of arithmetic, but it was supposed that the fund was almost invariable. Hence if any section of the workmen gained an increase, others must lose. Strikes were again deprecated.

It was then shown that the source of wages was not a permanent fund but a stream, and that each labourer produced the wealth for which he received his pay. Hence the capitalist simply advanced money to the worker to sustain him while he was making the goods. This showed that the wages fund was elastic. The way was cleared for the theory that if distribution were improved the labourer, by the fact that he spent more on necessaries, was made more efficient, and the wages fund was thus increased.

Supporters of unionism pointed to the undeniable fact that membership has generally increased at the same time as wages have risen. Opponents reply that the two phenomena result from a common cause, *i.e.* the improvement of trade, or that such increase of wages causes an increase in Trade Unionism. Again, at such times non-unionists have generally also obtained better wages, though it is held that this is because the battle has been fought for them by the organised workers.

The strike policy is based on the fact that labour is a commodity with a money value, which will not "keep." Perishables, *e.g.* fish, must be sold at once, while durable articles may be held up till a better price is forthcoming. Unionism makes the labour less perishable; the worker can wait.

It must be noted, however, that the man must sell his labour some time, as a durable article cannot be kept for ever. Thus competition between workers may be delayed, but it must come at last, with increased force. At ordinary times the competition among employers prevents a too great exploitation of labour.

Even if we suppose a combination of employers met by a perfect general union of workmen, it is not certain that wages would be much raised. Considering all entrepreneurs, successful and the reverse, wages of management are not exorbitant and would soon be swallowed up. If prices were raised, demand would fall off, while each workman would have to pay more for most goods.

Under certain conditions a small union may force up wages considerably. Suppose a trade requires great strength or skill; that the number of workmen in it is small compared with that of the general labouring population; that their work is of great importance to society, and that there is no substitute for it; that the price of the goods they produce is low compared with those with which they are used. If there is a strong union, with sufficient

funds, wages may be greatly increased. This follows because the union controls the employer, and through him the consumer and also the labour market. If entrance to a union is difficult, *e.g.* by apprenticeship laws, the same (market) control will result.

There was a little truth in the wages fund theory; it is always possible that not only the consumers but other labourers will be effected by an improvement in a certain union. In one way, however, the unionist may strike at his employer alone; if trade is good, the latter may be forced to pay higher wages for the time being; if it is bad, the workman may prevent a too great loss of pay. Strikes may thus shorten temporary exploitations.

If again the employer has a monopoly, he is obtaining excessive remuneration. He will probably be able to grant the demands for higher pay and may be obliged to do it by a strike; there should be no social loss if this happens.

Even supposing a union has control over the employer, if wages are too high the employer will refuse to pay them, and will diminish production, unemployment resulting. We may sum up by saying that an increase may possibly be obtained; it can never be very great for the whole of the workmen, while there are limits beyond which it cannot pass with social advantage.

(3) External Policy, 1908-14. Returning to the general industrial policy of trades unionism in the years before the Great War, the most marked feature was the decline of faith in Parliamentary action. Since 1900 the cost of living had been steadily rising, and in many trades wages were falling; a generation of State education of the masses doubtless contributed also to make the manual worker less patient with his lot. The left wing of the trades union movement began to look less to Parliamentary, and more to direct action, influenced in this direction by a modified Continental syndicalism propagated by Tom

Mann. Ideas of a national federation of trades unions and a general strike were everywhere in the air, and to this end three of the most militant sections, the miners, the railwaymen, and the transport workers, entered into a close offensive and defensive alliance. During the summer of 1914 the situation in the industrial world was one of severe strain, but before the threatened catastrophe occurred, energy and interest were diverted to wider issues by the outbreak of the European War.

CHAPTER X

CURRENCY AND BANKING

1. Barter

In early times trade was largely accidental. One man possessed an object on which he put a less value than on one possessed by another; his neighbour similarly had less regard for his own possessions. Here were present the conditions for a simple exchange or barter. The method is clumsy and unsatisfactory, and not suited to regular exchange.

Next, men began to get more definite conceptions of the value of their possessions; these would be compared with some familiar object. Among primitive communities cattle were generally possessed by all men. Thus, when exchange was desired, the utility of each commodity was compared with that of an ox. Then men began to give their cattle for any object which they desired, hoping to be able to obtain more cattle when required. Again, if a man possessed an object of little use to him, he was always willing to receive cattle for it, as their value did not depreciate.

Still, cattle were relatively valuable; a man might be willing to give two oxen for what he desired while refusing to give three, while his neighbour would insist on more than two. Hence many promising bargains had to be relinquished. It was necessary to obtain a standard of smaller value.

Gradually the conception of a standard of value, to be expressed in units grew up. At first it was ideal; two men would exchange in terms of a standard, though neither may have possessed any of it. The early English " mancus " was probably of this nature. Primitive tribes would require a material basis for the standard, so that a system

of counters grew up, like the cowrie shells of certain African tribes. These represented a far smaller unit than the ox, providing a fine adjustment.

Gradually, again, there came to be a definite relation between the counter and the object in question, and as every commodity was subjected to this comparison, the counter itself began to possess an independent interest. It now combined in itself the ideal standard, the counter which could be seen and used as a basis of reckoning, and the ox which was primarily acquired for its own sake. It needed only to choose a convenient medium and a money had grown up.

2. The Growth of Money

Cattle and slaves had an independent value; mere counters had no intrinsic worth; the new money had a value thrust upon it. As all goods were now reckoned in terms of money, and as anyone would accept this as a means of barter against any object required, so it was seen that money was a commodity which above all others it was essential to possess. A slave was useful, but unless he was of exceptional value it was safe to sell him and buy another later, when convenient. In most cases the articles used in common life were obtainable in this way.

A receiver would not take money which he could with ease obtain for himself. A privileged position could be obtained only by that currency which was already held in some special favour and which was difficult of acquirement. Then its value was enhanced.

If such money would keep, it would be more sought after than any other commodity. Though governed by the usual economic laws, it was in a special position. Men would hesitate to buy, because barter was not easy and their article might depreciate when they wished to get rid of it; they would like to sell, for they would obtain an article which could not spoil.

Money was now a medium of exchange and a standard of comparative value; it made trade easier, and it defined the terms on which trade could be best carried on. In later times it became a real standard of value, which could be used *at different times* without losing its usefulness, *i.e.* it was a standard of deferred payments. It attained such a position that all alterations in prices (in terms of a standard money) were explained as due to changes in the commodities concerned; the money itself was supposed to be invariable. Hence a debt contracted at any time for a given amount was paid (it was supposed) by returning the exact money borrowed.

Again, the temporary holding up of money until it was convenient to spend it developed into hoarding, *i.e.* money was accumulated either directly as treasure or indirectly in the form of valuables which could be directly turned into money. Thus the latter was used as a store of wealth.

Such a medium must fulfil stringent conditions. It must be useful of itself and limited in quantity, and must be able to pass from hand to hand. It must be convenient, so that it must have a high value for a small mass. All the units must be similar, else simple counting is impossible. It must be divisible without loss, and it must be possible to reunite the fragments. (Precious stones do not fulfil this condition.) It must be durable. It must be recognisable, and its value must be easily estimated. Its value must be unalterable.

Metals fulfil most of these conditions, while the precious metals (gold and silver) satisfy all except the last. As new sources were opened out, supply increased, and the price, compared with that of goods in general, diminished. Again, because gold and silver obey the condition that they must have an independent value (for ornament), so this is a source of instability. Gold was often hoarded in articles of display (*e.g.* plate), and this at any time could be minted.

In early English times the currency had reached this progressive stage. Metals may be cut into similar units, but they are not recognisable as such until stamped. Such minted metal is what we term money to-day. There is evidence that this money was known to the English before invading Britain; we know that the Romans had a highly developed coinage, which was used in this country, but it does not seem to have been perpetuated.

3. The English Currency: Early Times

The independently-developed English currency was minted in all parts of the country. As the nation developed, as central power grew, and as expanding trade required easier means of exchange, it was found convenient to centralise the minting as far as possible. A coin bearing the stamp of an important ruler was received with confidence. Again, though standards of weight had gradually grown up, these were variable, and some arbitrary standard was necessary. By the Conquest the money system had become fairly systematic, and in Norman times there was no sudden or great progress in this direction, though our present money relations then first became definite.

The silver penny was the only coin in Norman times (though this was cut up into halves and quarters by the people), until smaller denominations were issued in the thirteenth century: 240 pennies were made to weigh a pound; twelve pennies made up a shilling.

The coins varied much in size and weight; they were never quite round, and the die, impressed by hand, made no clear mark. Hence large payments were made by weight. Clumsy though the system was, it was to the advantage of the King to take minting out of the hands of the nobles. Taxes were more easily gathered when there was a medium in which to pay them, while increased trade followed a better and more systematic currency, and this increased

OLD COINS.

1. Edward III. A Florin of 1344. 2. Edward III. A Noble of 1360-1369. 3. Edward the Black Prince. A Gold Guiennois, struck at Bordeaux, 1363-1372.

the wealth and hence the taxable capacity of the nation. Most important, coinage was profitable and monopoly became the aim of the sovereigns.

In Stephen's reign the nobles took back their lost privilege, but afterwards their powers ceased. In the next reign coinage was almost confined to London and was placed in the hands of the moneyers. Central control was not only permissible, it was a necessity for healthy trade conditions, as long as government did not debase the currency. Even then illicit coinage could not be prevented, as minting was so backward that it could easily be copied, while the standard coins themselves could be so clipped as not to lose their characteristics. Milled coins were, of course, unknown. Once bad coins came into circulation they could not be removed.

This afforded opportunities for fraud. Only the lightest coins remained in circulation, the others were melted or exported. Matters gradually became so serious that both Edward I. and Edward III. found it necessary to reorganise the coinage and prohibit the export of bullion. Henry IV. commenced the evil practice of debasing the coinage, and his example was followed by Edward IV. and Henry VIII. The disordered state of the currency during the second half of the sixteenth century forced Sir Thomas Gresham and Elizabeth to reform the coinage once again, and in the reign of Charles II. the free system was adopted and the export of gold and silver was legalised. The new system, however, led to further instability, and in 1696 a Recoinage Act was once more necessary.[1]

4. The Double Standard

So far, England had possessed a double standard. In theory, gold and silver circulated side by side, while their respective values were fixed by law. The result of this bimetallism was instability; first one metal, then the

[1] See Part I., Chapters V., VI.

other was exported as it became under-valued. The turn of the tide came about 1760. In 1774 provision was made for the regular recoinage of light gold coin, and silver was made legal tender for amounts under £25, though it was still payable for any amounts by weight at about its market value.

In 1798 the coinage of silver (representing a legal standard) was forbidden provisionally, and the prohibition became permanent in 1816, when the Coinage Act provided for the free coinage of gold at the Mint price of £3 17s. 10½d. per ounce. Silver coin thus became mere change, and to prevent it being melted down for export the amount of silver in the new shillings was slightly diminished.

Even before this time, banking business included the issue of notes. Those of the Bank of England were convertible, *i.e.* the Bank had to pay standard money at face value for the notes on demand. Where this proviso was effective it was plain that the value of the note could never sink below that of the money it represented.

Unfortunately, the smooth working of the system was disorganised by the French Revolutionary Wars. Pitt made extensive borrowings from the Bank (practically forced) in order to subsidise our Continental allies. This reduced the Reserve directly, and also indirectly, because the balance of trade was against us and money drained out of the country. Private banks began to collapse and a run on the Bank of England followed, intensified by fears of an invasion.

5. Inconvertible Notes

The Bank was therefore on the brink of ruin, but still more money was required. The only possibility was to make the notes inconvertible, *i.e.* to allow the Bank to refuse to pay over standard money for its notes. This was done by the Government in 1797, though the notes could still be received in payment of Government dues. In

this way the Bank was able to maintain a Reserve, and bankruptcy was averted.

The notes were far more convenient than metallic money, and they served their purpose well. The Government escaped the necessity for new heavy taxation, and an expensive circulating medium was replaced by a cheaper. Passed as a temporary measure only, for Pitt was aware of the dangers of inconvertible paper, it was kept in force by successive Acts until after the war, and for twenty-four years Great Britain had a paper pound. After the resumption of cash payments the English tradition against a paper currency was so strong that notes were not made legal tender permanently until 1833.[1]

The system was satisfactory so long as the notes were not issued to excess. If convertible notes are over-issued, some immediately return to the Bank and gold is withdrawn until equilibrium ensues. No danger can arise unless the Reserve is so low that the public is alarmed and a panic occurs. On the other hand, if the notes are inconvertible and issued to excess, their value is regulated in the same way as that of any other commodity, *i.e.* it decreases. For a time the Bank Directors used their powers with caution; bankers are among the most conservative of men; but finally they yielded to temptation. The new century saw a great increase in the number of bills discounted (*i.e.* money lent) by the Bank, and at the same time bad harvests caused much bullion to be sent abroad to pay for foreign wheat.

The turning-point began with Napoleon's Berlin and Milan decrees, which by closing Continental ports to English goods, created an artificial scarcity which was subsequently intensified by England's retaliatory measures. But scarcity gave an impetus to speculation, and this was further increased by the practical independence of the

[1] The Act of 1812 was an annual measure only It lapsed with the resumption of cash payments.

South American colonies of Portugal and Spain which opened their ports to English goods after the invasion of the Iberian peninsula by the armies of Napoleon in 1808.

The joint-stock companies floated to exploit the South American trade[1] led to an enormous increase in the amount of bills of exchange discounted by the Bank of England, and in consequence, to a very great increase in the quantity of notes put into circulation. At the same time, and for similar reasons, the country bankers also expanded their issues. This great increase of paper currency, not based on legitimate commercial transactions was quickly followed by two alarming effects. The price of gold when measured in paper began to rise,[2] and the foreign exchanges began to move heavily against us. Early in 1810 an explanation was demanded from the Government by the House of Commons, and a Committee was appointed to enquire into the causes of the high price of bullion.

6. The Commons Committee

Four problems were presented to the Committee for investigation. Had the Bank notes really depreciated, or, on the other hand, had the price of gold actually risen? What influence, if any, had the increased issues on the rate of the foreign exchanges? What would be the effect of a restriction of the issues of notes on the price of gold and the rate of the exchanges; and finally, what policy should the Bank follow with respect to the regulation of its note issues?

The Bank directors, and they were supported by many merchants, denied that their notes had depreciated, and ridiculed the idea that their issues had adversely affected the foreign exchanges. Their main argument was that only a forced currency could affect the exchanges; on the

[1] Many of them were impossible undertakings like those of the South Sea Mania. See Part I., Chapter V.

[2] A gold guinea exchanged for about 27 shillings of paper money.

other hand, their paper was accepted willingly everywhere, a clear proof that it was not depreciated. Paper money, it was contended, entering into circulation through the channel of trade discounts, could not be increased beyond the needs of the public, otherwise, it would not be accepted in exchange for goods.

The Committee's Report which was considered by Parliament, May 1811, concluded differently, and it was supported by the logic of Ricardo's pamphlet. It argued that the high price of bullion and the depressed state of the foreign exchanges were definite symptoms of an excessive paper currency, a situation that had been brought about by the removal of all control on the issues of the Bank by the Act of 1797.

Against the contention of the Directors that over issue was impossible so long as advances took the form of discounts of bills arising from genuine trade transactions, the Committee argued that in the present circumstances every loan to merchants is not only an advance of capital, but also an addition to the total volume of circulating currency, and must have for result a depreciation of the purchasing power of each monetary unit. As the notes are inconvertible they do not return to the Bank, but continue in existence until the principal of the bills originally discounted has been repaid. Before this takes place, however, further issues will have been made, and the inflationist process will be repeated with each successive loan. The amount of superfluous money in circulation will continue to expand, and the prices of commodities will rise unceasingly.

The Bullion Committee therefore recommended a resumption of cash payments after an interval of two years, but the House of Commons was hostile to the Report, and its principles were not put into practice until 1821, mainly on account of the opposition of the Bank of England Directors.

7. The Resumption of Cash Payments

The rejection of the Bullion Report encouraged the Bank of England to continue the issue of notes without restraint. The progressive depreciation of the currency, however, hit the landowning classes so severely that Lord King sent out a circular to his tenants demanding payment of his rents either in gold or in notes of an equivalent gold value. The result of the circular was that Lord Stanhope succeeded in getting a Bill passed which prohibited all differentiation of payments between gold and paper, and which paved the way for notes becoming a forced currency.

Matters naturally went from bad to worse. The price of gold rose to £5 10s., and that of corn to an unprecedented height. In 1819 both Houses of Parliament appointed a Committee to inquire into the position of the Bank, and both Committees finally reported in favour of a resumption of cash payments. This change of front was partly due to the influence of Ricardo and partly to the fact that the commercial world which in 1810 had denied that the issues of notes had any effect on the price of gold, or on the exchanges, had been convinced by experience of its error. On the Reports of these Committees an Act was passed fixing May 1st, 1823, as the latest date for the resumption of cash payments, but the final date was anticipated by two years, and on May 1st, 1821, the paper currency which had been in vogue since 1797 was discontinued and replaced by a metallic coinage.

The currency position in 1919 was similar to that of 1819, and the principle of the Cunliffe Commission which was instrumental in restoring sterling to its pre-war parity on a gold basis in 1925 was identical with that of the Reports of 1810 and 1819. But whereas the Cunliffe recommendations broke down after six years' trial, those of the Bullion Committee and the 1819 Report were in effective force, except for one or two temporary interruptions, down to 1914.

Deflation of the monetary unit, however, was favoured by special circumstances in 1819. The primary effect of forcing up the purchasing power of the currency is to confer a balance of advantage on the classes whose incomes are derived from rent, interest, and other long-period contracts. They become legally entitled to a larger share of the product of industry. Now if wages remain intact owing to the strength of powerful trades unions, and if circumstances are such that advantage cannot be taken of technical improvements to lower the costs of production (when the market is curtailed by tariffs or other causes), profits not only vanish, but are converted into losses, and business becomes impossible.

The early nineteenth-century employer had several substantial advantages in this respect over his twentieth-century successor. In the then unorganised condition of the working classes, wages could be easily reduced to the level of physical subsistence, and as English manufacturers were without serious foreign rivals, advances in industrial technique could be safely resumed. Further, as foreign investments of British capital were negligible then, there was an ample supply of savings seeking investment at home, which by lowering the rate of interest on new loans assisted the leaders of industry. The gold standard was restored in 1925 under very different conditions.

8. Regulation in 1816: India

In 1816 the currency had again been regulated, silver coins being made "token" money, that is, they were over-valued, but harmless. Money can circulate at far more than its true value if there is a demand for a greater quantity of currency medium and if the issue is restricted. Coining in such cases is profitable and has always been heavily punished. This type is intermediate between standard money, circulating at its market value (plus a "seignorage" charge for minting), and paper money.

The shilling was reduced in weight to $\frac{1}{66}$ of a pound. The gold coin was changed from the guinea to the sovereign; its weight was reduced exactly in proportion. Ricardo brought forward a scheme for the introduction of a pure paper money, but the country was not prepared for it, especially after the late disasters. The currency remained unaltered in law until 1914.

The Indian currency regulation of 1893 must be mentioned. Silver was the standard money (*i.e.* was coined to an unlimited extent) and the rupee was the basis. The supply of this metal increased and its value fell. The price of the rupee (in gold) became so low that the British Indian mints were closed to silver. The effect was that India could no longer be relied on to drain redundant supplies elsewhere, a fact which has been of world-wide importance.

The silver coinage of India thus became a kind of token money, because its value was artificially kept up by limitation of supply. The increase in this kind of legally-debased money had been marked in all countries; from the point of view of confidence in the Government and in its duty of inviolate honour in money matters, the change is to be regretted; from the standpoint of economy, convenience, and trade it is very satisfactory.

9. Bills of Exchange

The same tendency has been shown in other directions. In the eighteenth century bills of exchange and cheques were known, but they became more important when the expanding trade following the Industrial Revolution necessitated a larger and more convenient elastic currency. The functions of money as exchange medium and as standard of value had long been separated in theory; now they were divorced in practice. The sovereign was reliable: it was a standard and worth its face value; the shilling was convenient enough for purposes of trade, but did not serve as a real standard except by conventional

relation with the sovereign. Cheques carried the matter to an extreme.

The bill of exchange (really a receipt for goods supplied) and the cheque can pass as money if confidence is not disturbed. Experience has shown that a general refusal to receive such media has only occurred during crises; however, each cheque must be judged on its merits and the value is determined by the probable financial position of the person signing it, as the bill depends on the solvency of the merchant concerned. The other condition is that there must be a real money basis. Just as a cheque will not pass from hand to hand unless there is the probability that money could be obtained in its place if required, so the cheques of a banker (notes) will not be accepted unless he has a reserve of standard metal in his coffers.

The peculiar development of English banking has thrown the duty and privilege of keeping the banking reserve on the Bank of England. This has generally exercised wisdom, so that on the whole the nineteenth century has seen the development of a currency the greater part of which is fictitious, being based purely on credit, part is overvalued, and a small proportion is worth its face value. The weakness has been shown when the collapse of credit has created financial panics, which have reacted on industry.

The quantity of money used in a country is not fixed. Even if all the currency is metallic and issued by Government, lessened demand following on diminished trade will lead to a decreasing value of the coin, *i.e.* an increased value of bullion measured in money, which will be melted or exported. Every transaction, unless it is barter of goods equal in value, means a passage of money; improved trade thus means stringency, *i.e.* a general shortage of currency. The development of cheques, etc., occurred when merchants had to find a way of postponing payment until money was in hand. Then it was seen that after a time many debts cancelled each other, so that the practice grew up of putting

off payment for a definite period, so that the present value of the bill was less (by the interest for the time) than the face value.

10. The Exchanges

The same process occurred in international trade. Here there was the additional difficulty that coinages were different and could only be compared by calculating the relative amounts of precious metals in the two standards. Again, the export of money was risky and expensive. Thus the principle grew up that if a merchant owed money to a foreigner, while another merchant in the second country was indebted to one in the first, debts could be nearly paid by the passage of money within each country. A merchant could buy a bill of exchange (receipt) from a fellow countryman, send it to his creditor, who could sell it to the debtor in the second country. In practice, of course, matters were not so simple, as the bills passed into many hands, but they became an international currency because they "were accepted" by a banker (for a consideration), and they then fulfilled all the functions of money. The value of imports and exports was thus reflected in the nature of the bills.

The old mercantile theory of the balance of trade was continued, in a way, in that of the "exchanges." If one country (*e.g.* England) exported much more than it imported, it was owed much money, and many foreigners were anxious to obtain command of English currency; exchanges were then said to be in our favour, and bullion tended to flow in.

An international money has not developed, though progress has been made on the Continent by the adoption of the metric system. The lack of a common standard money has been felt as a bar to commerce through the ages, and it was on account of this difficulty that banking systems first developed.

11. Early Banking

Banking, which like most economic institutions has a long and fluctuating history, developed on the Continent in its modern form in the sixteenth century, and in England through the Goldsmiths in the reign of Elizabeth. The first decisive step forward was taken in 1694 when William Paterson founded the Bank of England.[1]

Commercial and political circumstances made a national bank a necessity. Industry and commerce had developed to a stage from which further progress was dependent on a reduction in the average rate of interest, and on a guaranteed paper currency. At the same time the revenues of the Crown, barely sufficient to administer the Kingdom in times of peace, were hopelessly inadequate for the struggle to humble the power of Louis XIV., a policy to which the new government of William III. was committed.

The early history of the new institution was not unchequered, but the undoubted benefits which it afforded to the Government and the mercantile classes gained for it a support which enabled it to survive in times of crisis. It was the financial assistance given by the Bank that enabled Marlborough to take the offensive in Flanders, and the drive through Bavaria to Blenheim; while at home it was instrumental in lowering the rate of interest in spite of the greatly increased public expenditure during the war years.

But the most important general economic feature of the new Bank was the special privilege accorded it in 1697 and 1708, of the monopoly of joint-stock banking. During the eighteenth century, therefore, additional banking facilities could only be provided by private individuals.

12. Private Banks

The Industrial Revolution exercised a direct influence on banking. Only private banks could compete with the

[1] For details of early banking history, and the foundation of the Bank of England, see Part I., Chapters IV., V.

Bank of England, and as the sudden growth of industry and trade necessitated a greater use of currency and loans, some expansion was necessary. Private banks, therefore, developed rapidly after 1700 as the Bank of England did not plant its branches in the provinces. The results were not altogether happy; there was no check on the small banks, and they often came to grief.

In its early stages, banking was mainly an issue business which was profitable because the cost of production of the notes was negligible. But the temptation to gain was so great that frequently the reserves were endangered, and the crash came. By 1760 banking began to be more specifically concerned with deposits, for it was seen that the savings of others could be used as trade capital, and this was lent out to manufacturers eager for more capital in a progressive state of industry.

Three factors were necessary for the growth of deposit banking—the deposit itself; the use of the cheque; and the establishment of a Clearing House. The cheque system, which developed out of the Goldsmiths' receipts for deposits, came into general use on account of its obvious advantages over the note. A cheque can be drawn for any specified amount, and cancelled should fraud be suspected. Seventeenth-century cheques drawn on London private bankers such as Hoare, and Childs, are still in existence.

The Clearing House grew out of the custom of each bank sending round a clerk to collect and exchange cheques drawn on it; in 1770 these clerks began to meet in a public house in Lombard Street, and in 1805 a Committee of the London Clearing Bankers was instituted to regulate the method of clearing. Some years later the premises in Lombard Street were opened. Once started, the system developed rapidly and in 1845 the settlement began to be effected by means of a clearing account with the Bank of England. Towards the end of the nineteenth century, to

relieve the pressure on London, provincial clearing houses were established.

From 1750 onwards, provincial banks grew rapidly, usually as a side activity of the merchants and ironmasters. Notable examples are Lloyd of Birmingham, Wood of

THE ORIGINAL CLEARING HOUSE.
Early Nineteenth Century.

Gloucester, and Smith of Nottingham. The growth of large-scale industry had an important reaction on banking as credit machinery was required to make provision for large wage payments. The Napoleonic Wars necessitating,

as we have already noticed, an inconvertible paper currency, led many of the private banks into ruin; large numbers failed when the public lost confidence in their over-issued notes during the financial panics at the end of the eighteenth century.

It must not be supposed, however, from these failures that all country banking was unsound. The notes of Jonathan Backhouse, the Darlington Quaker, were preferred to Bank of England notes in the northern counties until well into the nineteenth century, and private banking disappeared, not so much from inherent unsoundness, as from the fact that joint-stock banking was in greater harmony with the new industrial conditions.

13. Joint-Stock Banking

The Bank of Scotland, founded the year after the Bank of England, enjoyed no monopoly of joint-stock banking. During the financial troubles following on the French Wars Englishmen began to advocate the merits of the Scottish system. In 1822, Joplin's pamphlet on the *General Principles and Present Practice of Banking in England and Scotland* appeared, together with a scheme for a Newcastle and District Joint-Stock Bank. This pamphlet attracted wide attention in the north of England business circles, and even the Government was not unfavourably disposed to any plan that would strengthen the provincial banks.

The financial crisis of 1825 brought matters to a head. The Prime Minister, Lord Liverpool, attacked the principle of the Act of 1709 which limited the number of partners in a bank of issue to six persons, and his view was supported in the Commons by Peel and Huskisson.

The result was a triumph for Joplin's campaign, and in 1826 an Act was passed making bank notes of less than £5 illegal, and allowing the institution of joint-stock banks outside a radius of 65 miles from London. In 1833 joint-stock banks were permitted within this area, though this

was of secondary importance, as issue banking was prohibited to the newly-legalised companies there. The Bank of England also received statutory right to open up branches in the Provinces.

Joint-stock banking at once responded to the stimulus. Between 1830 and 1840 the London Joint-Stock, the London and Westminster, the London and County, and the Union of London Banks were formed. By 1841 there were over 115 joint-stock banks in existence in London and the Provinces, while the number of private banks was steadily diminishing. The early history, however, was a period of storm and stress. Public opinion had little confidence in the new institutions; the Act of 1826 made no attempt to regulate their constitutions and management, and outside London the issues of their notes (except that £1 notes were not permitted). Panics, therefore, were not infrequent, and in 1836 and 1837 several of the new joint-stock banks were in difficulties, especially in the Manchester-Liverpool area.

Joint-stock banks were also hampered in that their members were liable for the whole of their possessions (as apart from the amount actually invested in the business) should failure ensue; and it was not until 1862 that limited liability was permitted.[1]

Though joint-stock banking was treated more leniently after 1826, note issues tended to become further monopolised. Legislation on this matter was necessitated largely by the crises of 1826 and 1839 which hastened matters. Two schools of thought existed—adherents to the Currency and Banking principles respectively. The former believed in issue restriction; the chief representative, Lord Overstone, showed that if a country had a simple gold circulation, when the metal was exported

[1] An Act of 1858 allowed a measure of limited liability, but with certain restrictions, and note issues were excluded, hence it had little practical importance.

prices fell, foreigners bought from us, the balance turned in our favour, and gold tended to flow back to make up the deficit.

In a country with a mixed circulation, a loss of gold might be relieved by increased issue; if this was too great, prices would even rise and gold would again be lost. It was a valve action; the gold could only flow out and could not return, as the paper kept up prices.

14. The Currency Theory

The currency theory had two great defects; if adhered to strictly, *i.e.* if the number of notes were kept constant, there could be no increase in the currency if trade required it. It was a serviceable principle for normal conditions, but in times of crisis the Bank must lend freely, and it could do this best by an issue of notes. The theory was not sufficiently elastic.

Secondly, the theory overlooked the fact that other forms of credit existed besides notes; its excuse is that deposit banking was still backward. A banker can just as easily give a cheque to a trader as issue a note, and both have the same effect on the reserve if presented for payment. The currency will expand in some way if increasing trade or a crisis necessitates expansion.

15. The Banking Principle: The Bank Act of 1844

The supporters of the banking principle, the representatives of the directors in the inquiry of 1810, saw these errors, but they also were guilty of confused thinking. They asked how it could be that if the note was convertible it could ever be issued in excess, as it could always be brought back to the Bank for repayment. The great statistician, Tooke, showed that the number of notes in circulation was fairly constant. Yet it was these very facts which constituted the danger. Like that of their opponents, the principle of Tooke and his followers broke down in times of crisis.

If the Bank had a low reserve and issued notes in excess while the balance of trade was against the country, gold would flow out, notes would return to the Bank, and the result might be a panic. Tooke and his followers fell back on the principle that issue should be governed by trade conditions, *i.e.* that the Bank should discount all bills offered on good security; they forgot that discount was only one factor in the question.

The banking principle was more dangerous, the currency principle more needlessly restrictive. The aim was to abolish crises, so that Peel adopted the latter view in the great Bank Act of 1844, which caused so much controversy.

It was recognised that the Bank was semi-public, but it was held that it had no freedom of issue, though it had perfect liberty as regards deposit banking. The first was carried on for the benefit of the country. Deposit banking was an elastic source of profit. Hence the two departments were quite separated.

The issue department was allowed to issue notes, based on credit, up to 14 millions, and to any further amount provided the new notes were exactly covered by gold in the reserve. When any other bank lost its issue, the Bank obtained two-thirds of the lapsed amount; at the same time, no new banks of issue were to be formed in any part of England.

The banking department was given absolute freedom, and still acted as banker for the Government, but, on the other hand, it could not apply for help to the issue department. It had to rely on its own reserve. This amount was given in the weekly return, and decided the fate of the moneyed interests of the country.

Although the reserve account was published, there was no law to say what its amount should be. Fortunately, Bank directors were cautious men, and governed by customary rules. However, the successful administration of the law was made entirely dependent on good management.

The Act had an effect in stimulating the use of cheques. These can be made of any value, and in some ways are more convenient than notes, while if there is perfect confidence they have no disadvantages. An elastic currency was essential; cheques gradually became almost the only means of payment in business.

Innumerable transactions were carried on, and this meant that each firm owed and was owed large sums. Hence if one customer of a bank owed money to another, the cheque system made it possible to clear off the debt by a mere transfer of entries in the banker's books. The same principle was applied as between bankers, and the Clearing House, instituted in 1775, was used by joint-stock bankers after 1854.

The Act did not affect crises. It was too rigid in regard to its note issue, and perhaps too lenient on the banking side. The Bank should use the reserve freely in times of panic to inspire confidence, and limitation of notes means that the gold cannot be economised. The first crash came in 1847; the Government gave permission to increase the circulation for the time. The permission was sufficient, and the crisis subsided. In 1857 the power was actually used, but in 1866, after the failure of Overend, Gurney and Co., the permission was again sufficient.

In carrying through the Act of 1844, Sir Robert Peel was undoubtedly influenced by the earlier draft scheme of Ricardo.[1] In many respects the Plan for a National Bank differs fundamentally from the Charter of 1844, but the vital principle was common to both. This was, of course, to tie the note to gold, and to gradually concentrate the issue of notes at Threadneedle Street. This, however, proved to be a much slower process in practice than Peel and his friends anticipated. Over £1,000,000 of non-Bank of England notes still circulated as late as 1890, and they were occasionally to be met with even in 1914. The

[1] Plan for a National Bank (1824).

last bank with rights of note issue, Fox, Fowler and Co., amalgamated with Lloyds in 1921

16. The Financial Crises of the Nineteenth Century

The financial crises of the early years of the nineteenth century have been noticed incidentally in connection with the monetary troubles of the Bank of England during the period of the French Wars. Those of 1797, 1809, and 1818 may be attributed to the peculiar conditions generated by twenty-three years of almost incessant warfare, in which as in 1914-1919, England shouldered the major portion of the financial burden of her allies.

The financial machine, however, did not run smoothly even when normal conditions had been restored after Waterloo, and the history of nineteenth-century banking is a record of periodic financial collapses.

(1) The Crisis of 1825. The resumption of cash payments by the Bank of England in 1821, which coincided with several successive good harvests, restored public confidence. Rising prices allowed the Government to reduce the rate of interest on the National Debt, which in turn caused a large transfer of capital from public securities to commercial undertakings. Speculation was thus encouraged, for capital only enters doubtful undertakings when the rate of interest on public securities is low. At the same time, the Spanish and Portuguese colonies in South America appeared to offer a specially fertile field for commercial exploitation. The South Sea episode of the previous century was repeated. The price of shares in companies floated to open up the South American trade rose by leaps and bounds during the greater part of 1825, only to collapse as suddenly before the end of the year. The panic which followed caused the failure of numerous country banks, and a large number of financial companies in London.

(2) THE CRISIS OF 1836-1839. Between 1833 and 1836 England experienced a wave of prosperity, partly due to good harvests, and partly to the fact that the new joint-stock banks in the provinces had increased the facilities for credit. The result was a further outbreak of speculative enterprises, the financing of which caused a drain on the gold reserves of the Bank of England. At the same time, America was selling securities on the English market in order to acquire gold for the purpose of putting her own currency on a sounder basis. To stop this drain, the Bank of England not only raised its discount rate to 5 per cent., but refused to discount any bill which had previously been endorsed by an English joint-stock bank. This measure forced a crisis because most of these bills were American securities which had been bought by the joint-stock banks and put into circulation again after endorsement. Several South Lancashire banks and London financial houses were quickly in so serious a situation that the Bank of England, against its own inclination, had to render assistance.

This eased the crisis but did not end it. In 1838, the harvest failed completely and gold was sent abroad to purchase corn; at the same time, the drain to America increased in intensity. By 1839 the Bank of England's Reserve had dwindled to less than £3,000,000, and bankruptcy was averted only through the timely aid afforded by the Bank of France.

During the crisis no less than sixty-three country banks suspended payments.

(3) THE CRISIS OF 1847. The failure of the Irish potato crops in 1848, a succession of bad harvests in England, and a too rapid development of the railway system caused another financial crisis in 1847. Over investment in railways caused a financial stringency by rendering a large mass of capital immobile, and the failure of the home food supply necessitated a drain of gold abroad to purchase corn.

By the end of September 1847 the Bank of England's Reserve had again fallen to £3,000,000, and the directors not only raised the discount rate to 5½ per cent., but even refused advances on public stock and Exchequer Bills. This action caused a panic on the Stock Exchange, Consols dropped heavily, and banks in various parts of the country stopped payment.

This situation compelled the Government to take action. It advised the Bank that a Bill of Indemnity would be proposed to Parliament should notes be issued in excess of the limit laid down by the Act of 1844, with the proviso that the minimum rate for discounts and loans must be 8 per cent. The Bank prepared £400,000 of extra notes, but they were never needed, for the Government's announcement restored public confidence, and the crisis ended.

(4) The Crisis of 1857. This time the trouble began in America, where the gold discoveries in California in 1849 had given an unprecedented stimulus to undertakings of all kinds. Between 1850 and 1857 thousands of miles of railway track were laid down, and speculation in railway stock was encouraged by the practice of paying dividends out of capital. The immediate cause of the crisis, however, was the rapid increase in the number of American banks, with insufficient capital, which attracted deposits from abroad by offering high rates of interest and lent the money thus obtained to speculators.

The crash came in August 1857 with the failure of the Ohio Trust Company. This caused a panic on the New York Stock Exchange, and was followed by the failure of several railway companies, and numerous banks all over the country from New York to Virginia.

These failures had quick repercussion in England on account of the large amount of capital invested overseas in American Stocks. The Western Bank and the City of Glasgow Bank failed, and a general financial collapse followed. Practically the whole of the English discount

business was thrown on to the Bank of England, and the Reserve actually fell below £500,000.

Under these circumstances the Government had no alternative but to again suspend the provisions of the Act of 1844; this restored confidence, and the storm gradually abated, but more slowly than in 1847.

(5) THE CRISIS OF 1866. Several factors conspired to upset the financial situation again in 1866. The shortage of raw cotton caused by the American Civil War (1861-4) compelled England to draw in supplies from the Far East which were paid for in silver, thus disorganising the money market to some extent. On the other hand, the inconvertible currency established by America in 1862 had the effect of driving considerable quantities of gold over to Europe, which in turn gave an impetus to speculative enterprise by lowering the rate of interest.

The main factor, however, was the Limited Liability Companies Act of 1862. The prospect of high profit at limited risk led to the formation of hundreds of companies with a huge total nominal capital.

The actual capital raised was not obtained from the sale of stock, but by the discounting of finance bills guaranteed by the London Accepting Houses. Now the discounting of a true bill of exchange is a perfectly legitimate transaction, for in ordinary circumstances the goods have been marketed before the time of maturity of the bill. But a finance bill is merely a loan raised on the strength of the name of the acceptor, and should a House accept more bills than its liquid assets warrant, it can seldom stand the strain of a sudden financial stringency.

We have here the cause of the collapse of 1866. The financial situation had been uneasy for some time; even in 1864 an unfavourable turn in the foreign exchanges had compelled the Bank of England to raise its discount rate to 9 per cent., and in 1866 the prospect of a European war started a commercial crisis.

The Panic began with the failure of the Joint-Stock Discount Company, which was followed almost immediately by Barned's Bank at Liverpool. The climax came on May 11th (" Black Friday ") when Overend, Gurney, and Co., one of the greatest financial houses in Europe, failed with liabilities of almost £19,000,000. It is difficult for the present generation to appreciate the consternation in Lombard Street when the news was made known, for Overend's failure is perhaps the most sensational crash in financial history. Commercial confidence broke absolutely; no one seemed safe; and in a single day the Bank of England was compelled to make advances to the extent of £4,000,000.

This, of course, could not continue, and for the third time the provisions of 1844 were suspended. This relieved the tension considerably, but the tide of disaster was not yet stemmed, for in the following week the London Bank, the Consolidated Bank, and the Eastern House of Agra and Masterman suspended payment with total liabilities of over £20,000,000.

The position was righted only very gradually; the Bank Rate, which was raised to 10 per cent. on " Black Friday," was continued at this high level for over three months. In spite of this high rate of interest foreign deposits refused to be drawn in from abroad, and the belief was widespread that England's financial supremacy had ended.

The crisis of 1866 effected a mild revolution. Not only were the unsound banks and companies purged from the commercial world, but a mortal blow was struck at the practice of financing enterprise by means of accommodation bills. As a result, no further purely financial crisis occurred until the Baring trouble of 1890.

(6) The Baring Crisis, 1890. Between 1888 and 1890 a good deal of English capital was subscribed for various company undertakings in the Argentine Republic. By 1890 Lombard Street began to be uneasy, and Baring

Bros., the most important financial house in London, began to experience difficulty in meeting claims upon it largely because it was unable to dispose of South American shares that it had " under-written."

In view of the public interests at stake, and to avoid a second Overend, Gurney failure, the Bank of England decided to come to the rescue, and Barings was saved. This it was enabled to do by means of gold provided by the Bank of France, and for the second time during the nineteenth century French gold averted an English collapse.

17. Walter Bagehot

The causes of the financial crisis subsequent to 1844 were closely investigated during the second half of the nineteenth century. It was during these years that Bagehot published his *Lombard Street*, which remained the standard authority until recent years. Bagehot argued that the root cause of crises lay in weak administration (at critical times), and above all, in too low a reserve. Bagehot attached special importance to the Reserve, owing to the peculiar feature of the English banking system. The English system is the one reserve system; only the Bank of England holds a reserve of any magnitude, and this reserve was always liable to sudden depletion owing to the fact that London had become the world's monetary centre. Stringency in a foreign country was always reflected here; and there was always the danger that a foreign government might withdraw its balances for political purposes. Hence schemes grew up suggesting the compulsory increase of the Bank of England's Reserve, and the reserves of the other banks.

It is easy to impute too much blame to the Bank of England's administration. Bagehot painted a somewhat exaggerated picture of the monarchial position of the Bank even for his time. The other banks did not always follow

the Bank Rate in the first stages of a crisis; indeed, the suspensions of the Act of 1844 probably inclined the other banks to the belief that the reserve was of secondary importance, and that the State would not allow the Bank of England to fail.

To-day (excluding recent events), the monarchial position of the Bank of England is much less pronounced than when Bagehot wrote. The "Big Five" form a solid block, powerful enough to generate a tide of its own, at any rate, except when a crisis is very acute.

18. Amalgamation

The most striking feature of the banking history of the last hundred years, apart from the rise of the cheque system, has been the movement towards amalgamation. This movement is often referred to as a recent one; in reality, it dates back to the Joint-Stock Act of 1826. The large number of joint-stock banks formed between 1826 and 1841 was correlated with a progressive reduction in the number of private concerns.

For this there were various reasons. Each successive crisis "combed" out the unsound businesses; either they disappeared entirely, or, as was frequently the case, they were absorbed by the stronger banks. Many of the early joint-stock banks like the London Joint-Stock; the Shropshire Banking Company; and the Halifax Commercial Bank, were founded on existing private concerns. But perhaps the most important factor making for amalgamation was the system of branches which the joint-stock banks established from their first inception. By 1836 the National Provincial Bank had 47 branches, and the Commercial Bank of England had eighteen. Branch establishments were not favoured by private bankers on account of the supervision work involved, hence business tended to be diverted from private to the joint-stock institutions.

From the passing of Peel's Bank Charter in 1844 down to the Limited Companies Act of 1862 the amalgamation movement made slow progress, but in 1864 private banking suffered a heavy loss when the important firm of Jones Lloyd was absorbed in the London and Westminster Bank. The passing over of this provincial bank to joint-stock enterprise decided the fate of private banking.

Lloyds, which had recently been reorganised on a joint-stock basis, now moved its headquarters to London, and so did the National Provincial Bank.

From 1866 onwards, the establishment of branch banks and amalgamations developed great activity. Both aspects were now consciously planned on a definite geographical basis. Stukeys of Bristol entered into the south-western counties by absorbing the Somersetshire firms of Dunsfords and Badcocks. Lloyds extended their activities around Wolverhampton and on into South Shropshire, and the Midland also effected some notable amalgamations.

In 1883 the Midland followed the example of Lloyds, and by its absorption of the Central Bank of London it obtained a London office and a seat in the Clearing House; and in 1896 Barclays carried through a gigantic amalgamation of fifteen large private firms operating in country areas in which the joint-stock movement had scarcely penetrated. In 1900 and 1901 Lloyds absorbed the Bucks. and Oxon. Union Bank, the Liverpool Union Bank, and four large private banks, among which was Brooks and Co., the last Lombard Street private house.

By 1900 it had become established beyond doubt that the small bank could not compete on equal terms with the large joint-stock institutions for the more remunerative business. During the latter part of the nineteenth century business enterprise began to be conducted on a vast scale, and the ever-increasing size of the industrial and commercial unit necessitated a corresponding change in the system of banking.

During the present century, amalgamation has proceeded unceasingly, because after a certain point was reached, competition for business had a cumulative effect on the movement. In 1909, for example, the London and Westminster amalgamated with the London County in order to obtain a country connection.

The War years, 1914-19, gave an additional impetus to combination, as manufacturers working on government munition contracts required an amount of credit accommodation beyond the resources of most of the banks. It was on this account that Barclays entered the Midlands, and that the London City and Midland entered into alliance with the Belfast Banking Company.

Foreign extensions were also made in these years. The National Provincial and Lloyds formed a company to operate in France; the London City and Midland opened an office in Russia; and the London and Westminster established a branch in Spain. Lloyds played a special part in this movement, for in rapid succession it acquired a controlling interest in the London and River Plate Bank; the London and Brazilian Bank; and in the Bank of British West Africa. This bank now holds an unchallenged position in this field of enterprise.

By the end of the war the amalgamation movement was practically completed, and the bulk of English banking business (apart from the Bank of England) passed into the hands of the "Big Five."[1] The almost feverish activity of the movement during the closing stages of the war is explained by the fact that special efforts were necessary to maintain London's position as the financial centre of the world, and also that similar movements were taking place in such countries as Germany, Sweden, Canada, and Australia. Another reason was that the financing of the reconstruction of industrial undertakings necessitated very

[1] London City and Midland, Lloyds, Barclays, London and Westminster, and National Provincial.

large banking combinations. A discussion of the advantages and disadvantages of the amalgamation movement in banking falls beyond the scope of Economic History, but the balance of advantage seems to lie in favour of the new system. The old system was more flexible, and the private banker with his local social associations was more influenced by sentiment than the branch manager of the present day. On the other hand, amalgamations have made for greater stability; they have reduced the rates of interest to uniformity; and they have rendered possible a more economical distribution of the country's financial resources.

The chief danger in amalgamation is that it may possibly end in a " Money Trust," and it was the possibility of this contingency that led the Colwyn Committee (1918) to recommend that future amalgamations should be subject to Treasury control. It seems more probable, however, that banking will become a State department should a Socialist Government be placed in power with a substantial working majority.

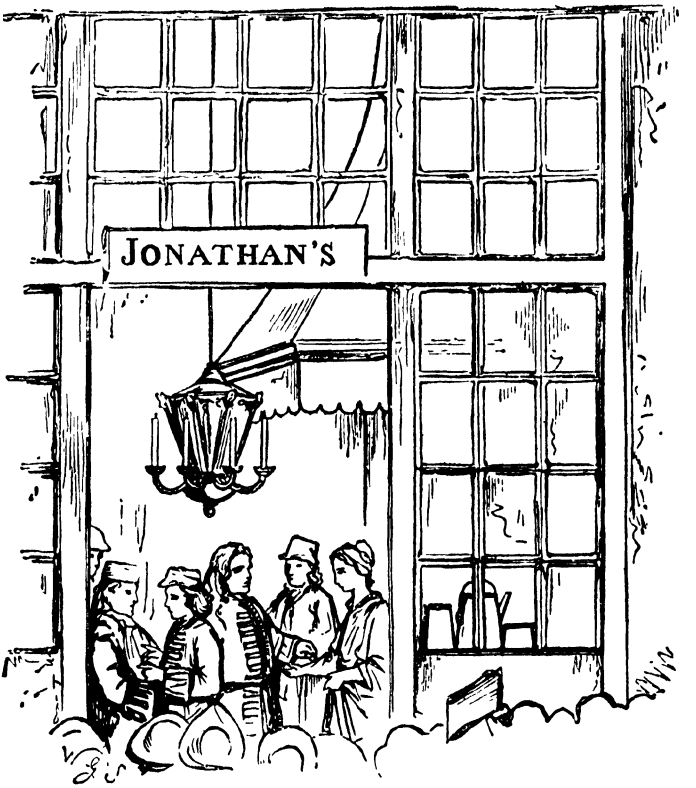
19. The Stock Exchange

With the existence of Government transferable securities due to the growth of the National Debt during the eighteenth century, the stock-broker made his appearance. These dealers, who may be traced back to the " Bubble " mania of 1720, were long looked upon with suspicion. They were suppressed by Act of Parliament in 1734, but they gradually established themselves in secret.

In 1767 a test case went in their favour and a club was formed which met at Jonathan's Coffee House in Change Alley. In 1803 the London Stock Exchange was formally opened, and it gradually became accepted.

During the nineteenth century brokers became specialised for different kinds of bills until a very varied business was carried on by men who knew the details of some trade

exactly. Gradually the scope of their operations widened so that brokers now deal not only with stocks and shares



JONATHAN'S COFFEE HOUSE.
From an old Sketch.

and credit instruments used as currency (bills of exchange), but also with industrial products, such as wheat and cotton, on the produce exchanges of Manchester and Liverpool.

20. Insurance

Fire insurance dates back to the beginning of the eighteenth century with the founding of the Hand-in-Hand and Sun Companies. During the "Bubble" period two other great London companies were inaugurated, the Royal Exchange and the London Assurance. Fire insurance did not gain a foothold on the provinces until after 1760, when companies were formed at Bath and Bristol. Most of the existing great companies (except the Sun and the Royal Exchange), the Phoenix, the Norwich Union, and the Liverpool, London and Globe, for example, were established between 1780 and 1830.

Life insurance started with the Equitable Society in 1762, but made little progress before 1800. For one reason, actuarial knowledge was in its infancy with the result that insurance of lives was largely a gamble. During the early years of the nineteenth century the Albion (1805), and the Eagle (1807) companies were founded, but owing to fraud on the one hand, and a lack of scientific knowledge on the other, the mortality among the early companies was very heavy. The publication of Milne's mortality tables in 1815 was the first real step in the direction of an exact actuarial science. Rapid progress was made after the foundation of the Institute of Actuaries in 1848 and to-day, life insurance is a recognised method of saving. Of the Industrial Life Assurance Companies which specialise in small working-class policies, the most important are the Prudential and the Pearl.

Marine insurance is much older than fire or life, and was not unknown to the age of Elizabeth. Its real origin dates from the second half of the seventeenth century when a group of London underwriters began to meet at Edward Lloyd's coffee house in Lombard Street. These underwriters transacted business as private individuals, but they formed a club, and in 1774 moved to the Royal Exchange.

Between 1820 and 1825 attempts were made to break

down Lloyds monopoly. Through the influence of the Rothschilds the Alliance Marine Assurance Company was floated, and this was followed later by the Indemnity Company, the London Marine, and the Liverpool Marine Companies.

But the bulk of the business remained with Lloyds, and in 1871 they were incorporated for the purposes of marine insurance, protection of members' interests, and for the diffusion of shipping intelligence. The actual business has remained individual, and the method of sub-divided risk is still followed.

The peculiar historical interest attached to the early assurance companies arises from the fact that their business was much too vast for individuals or even small partnerships.

The risks of marine insurance were shared from the first by a large number of individuals; the organisation of the other forms varied from incorporated chartered companies to very extended partnerships similar in many respects to the joint-stock company; it is not unreasonable to suppose, therefore, that the development of insurance assisted in various ways the growth of joint-stock enterprise.

21. The Working-Class Banks

Working-class savings banks were first made possible by the Post Office Savings Bank Act of 1861. This paved the way for the institution of banks for the express purpose of receiving on deposit the small savings of the working classes. The old Yorkshire Penny Bank was a typical example. A movement of a similar type was the Building Society movement of the northern industrial districts. The small savings of the working classes were combined to form a sum, allotted (in various ways) to members for the purpose of purchasing their dwelling houses. These societies have now changed in character, and to-day they may be regarded as real property mortgage banks.

Similar in some respects, but a more recent innovation, is the Birmingham Municipal Bank. This bank has two functions. It is a deposit bank, primarily for the working classes—it has no cheque currency—and it assists its depositors to purchase their dwelling houses by advancing 80 per cent. of the market value on mortgage; the principal and interest to be repaid within twenty years.

The bank, which was established under the Birmingham Corporation Act of 1919, is administered by a Committee of the City Council, and the deposits are secured by the rates. It thus represents an entirely new departure in English banking, and the brilliant success that has attended this experiment suggests further extensions in the future of this form of municipal activity.

CHAPTER XI

PRICES AND WAGES

1. Value and Price

It has been seen that the method of barter prevalent in primitive times was replaced by a system of buying and selling. As objects were no longer compared with each other, but with some common standard, that standard assumed an exceptional position, and the comparisons of the worths of different objects were generally carried out by finding the worth of each in money. The conception that the worth of any object bore a definite relation to that of any other was hardly understood; that relation we now call value (in exchange).

If a horse can be exchanged for two sheep, then its value compared with that of a sheep is two. Money may also be used as the means of comparison, and so we reach the conception of price. Hence price is a particular form of value, and really occupies no exceptional position. If we know that the price of a cow is ten pounds, then we can also say that a pound has a tenth of the value of a cow.

We know that the values of objects are fixed by demand and supply. If a farmer possesses a horse and wishes to exchange it for the sheep of another farmer, the deciding factors will be the number of each of the animals available to the two farmers, together with the intensity of the desire of each for his own and his neighbour's property. The horse will sell cheaply if the seller wants sheep very badly, if the buyer does not obviously want the horse, if horses are easily obtained in that neighbourhood and sheep with difficulty.

The price of an object, similarly, is fixed by the demand and supply relating to that object and to money. Other things being equal, a large supply of the object means a

low price. Similarly, a large supply of money means a low value of money compared with other objects. Now we reach the essential difference between money and other objects. The latter can fall in price; money cannot. A sovereign is always called such, however many there may be in the country. If, then, the sovereign becomes less valuable in comparison with other objects, these latter must rise in price.

For example, suppose the number of sovereigns in the country to be suddenly doubled. A person wishing to sell an object would find sovereigns very plentiful and his demand for them would diminish. Hence he would require more sovereigns than before the change. Again, we may suppose that all persons obtain more money than before. Anyone wishing to buy would be provided with more money than formerly and would be willing to part with more of it. Thus prices would rise, and in the end would be exactly doubled if all the other factors remained constant.

2. The Quantity Theory of Money

This line of reasoning led, in the last century, to the theory that the prices of objects in general are directly proportional to the quantity of currency in the country. This was the Quantity Theory of money in its crudest form.

It neglects the demand for money. This affects those who have objects they wish to sell. Now everything in a country which has a price is, in a way, for sale, but most things are held back, and it is those commodities put on sale in the open market which really affect price. Price thus is influenced by the number of saleable goods; when this number is very great and commodities are changing hands rapidly, then trade is good, the demand for money increases, and prices fall, other things being equal. We must say that price is fixed by the relation of the supply of money to that of saleable goods in general.

On the supply side, we must note that money may be hoarded or used sparingly. This will be the same thing as a decrease in the supply of money and prices become lower. If money passes more quickly from hand to hand, its supply is really increased, as it is more often met with, and prices rise. The efficiency of money is then said to be greater.

Again, money is often replaced by notes or other credit instruments. In so far as these are backed by metal in the bank's reserve, they are mere substitutes, and can produce no effect in price. Invariably, however, notes are an addition to the currency, at least in part. Thus, although they may displace gold to some extent, the net result is a rise in prices.

This is most strongly marked in the case of inconvertible notes. These when issued are generally depreciated, as in England about 1810; compare, too, the American "greenbacks." By Gresham's Law, the gold is exported, and as there is no limit to the supply of notes, prices rise greatly. The assignats of the French Revolution were finally worth only a few pence.

If the Quantity Theory is to be of use, we must thus take into account the amount of money, its efficiency, the number of credit instruments, and the state of trade. By careful qualification we can formulate a sound theory. When this is done, however, the theory is so elaborate as to be almost unmanageable. It is hard to estimate the exact effect of credit substitutes. English notes to-day are practically money; some bills of exchange do not possess the quality at all, and between the two are all intermediate stages.

Thus the crude theory cannot be used for historical purposes, but we can learn one lesson. We can show that certain sudden imports of precious metal sent up prices, and that these have also depended largely on the state of trade. Hence we can say that a general rise of prices has

probably been caused by an increase of precious metals, but cannot presume the fact with any certainty.

It is not the addition of money which produces the effect, but the new quantity as compared with the old. Ten millions added to the same sum would double prices; added to a thousand millions it would have hardly any effect. Again, even after the influx slackens, the quantity still increases, so that the effect lags behind the cause.[1]

3. Precious Metals do not Constitute a Perfect Standard

Thus the standard which has been the favourite of most civilised peoples is wanting in one of its first essentials; it cannot serve as a permanent measure. Prices vary from place to place at the same time, and from time to time in the same place. This has most serious effects. If a man owes money and pays back the stipulated sum at a later date when prices have risen, the money is not so useful to the creditor; on the other hand, if prices have fallen, the debtor loses. No doubt one loses what the other gains, but the uncertainty is a dead loss to the country. Other standards have been suggested, and corn rents were common in mediaeval times, *e.g.* in some of the colleges. Corn varied greatly in value from year to year, but was pretty constant over a long period.

Even wheat undergoes some permanent change in conditions of demand and supply. New methods in agriculture may make it more easily obtained, while a growing population increases the demand. These forces work in opposite directions, but some change is inevitable. The case of human labour is just as bad; though it is constant in a way from age to age, yet it is impossible to

[1] The Quantity Theory has now many opponents As a special explanation of the value of money it is being rapidly discarded. Modern theory recognises no fundamental difference between the value of money and the value of commodities. One principle is sufficient for both. See Wicksteed: *Common Sense of Political Economy, Book II.*

compare different kinds of work or to say which shall be the standard.

These are the best measures in common use, and we can say with fair certainty that no single standard is sufficiently permanent. Economists have tried to evade the difficulty by means of the Index Number. Though one or a few commodities may change in value, *i.e.* in their conditions of demand and supply, it will be surprising if all do so, and they cannot all move in the same direction. Wheat may become more valuable in comparison with other commodities because its supply has fallen or the demand for it increased, and other goods may follow its example, but everything cannot increase in value in comparison with everything else in general.

On the other hand, all commodities may rise in price, and this will happen when money falls in value in comparison with other goods. Hence if the prices of all goods are tabulated at different times, and they all rise or fall together, we know that the money only has changed. If a few prices only change, certain commodities have altered their conditions of demand and supply.

4. The Index Number

What has always happened in practice is that nearly every price has changed, some going up and others down. If the average of the new prices is higher than that of the old, we can say that money changes have perhaps raised prices a little, and more certainly, that general prices have risen. A series of averages of general prices, all made on the same principle and based on the same standard, is called an index number.

A rise in the index number means that on the whole, considering the goods as of equal importance, prices have risen. This would be of little effect if there had been a large rise in little-used commodities, and a smaller fall in a staple food like corn; in that case, general prices would

really have fallen. Hence the average must be weighted. Thus the price of each commodity must be multiplied by a number corresponding to its importance.

For accurate work the kind of average is important. The geometric mean was taken by Jevons, because the arithmetic mean accentuates the effect of a single commodity which is much dearer or cheaper than the rest. The most convenient average is the median, or the price half-way up the scale; if there are 1,000 men arranged in order of height, the 500th man will be very near the average height; this average is more easily found than the arithmetic or geometric mean.

Fortunately for most purposes the method of making the index number matters little, as all systems produce broadly the same results. Even an unweighted average gives results of value, and this method was used by the *Economist*, though the method of this paper is now more elaborate, as is the famous one of Sauerbeck.

The use of this standard will now be seen. Suppose a certain money rent is due. At a later period prices may have risen, but this can be allowed for if we know how far money has fallen in value in relation to goods in general. If the index number has risen from 100 to 150, then the new money rent, to have the same real value as before, must increase in proportion. Hence the index number provides the standard for deferred payments which was sought when colleges, etc., received their rent in corn. It is its great use in economic history which concerns us here. In practice some year is generally taken as a standard, and the price fixed at 100; but this method provides no direct comparison between one year and the next.

5. Historical Support to the Quantity Theory

We see, then, that while money is not a satisfactory standard, the quantity theory of money is not simple enough to be of great help. Hence we fall back on direct

measurement of prices. This is very hard for mediaeval times, and even to-day our knowledge is incomplete. The prices themselves are hard to discover, and when found we must use them to form an index number to elucidate the real changes hidden beneath apparent changes in prices. Early prices are treacherous; they must be carefully compared with the value of money at the time, and this itself can be found only on such unsafe premises.

Yet some points stand out clear. First, in spite of modern objectors, history does support the quantity theory.[1] The Spaniards, after the discovery of America, thought that gold was the one form of wealth and they forbade its export. The result was an enormous rise of all prices. The Netherlands, held by Spain, shared in the metal supply, and prices next rose in that country. The prohibition was evaded, and other Continental countries obtained more gold, a rise of prices occurring here also. The countries were always affected in this order when Spain received a large sudden supply.

The early history of prices and wages in England is very obscure. It has been pieced together with infinite labour by historians like Thorold Rogers. Though his methods and his results have been criticised, there is certain to be much truth in his conclusions. The real trouble is that the data are too scanty and too scattered, so that results cannot generally be tested by comparison. Thus early periods may be passed over lightly.

6. The Rise of Prices in the Sixteenth Century

The characteristic stability of mediaeval times is reflected in prices. A very slow fall seems to have occurred in the fourteenth century, broken by the Black Death. The sixteenth century saw the first great rise in prices. The

[1] Otherwise the theory would never have arisen It was an attempt to interpret concrete experience.

Spaniards looked only for precious metals in the newly-discovered America; when these were brought back, economic changes followed which had immense political importance. The English sovereigns for this, among other reasons, were in want of money, and creditors lost heavily. The changes seemed arbitrary to the people of that time, and the correct explanation was not forthcoming.

The magnitude of the effect was very great. We must remember that gold and silver were rare metals in Europe; and were only possessed by the richer nobles and the Church. Wear and tear, *i.e.* the natural wastage through usage, had neutralised the effect of new discoveries, while large hoarding had probably become commoner. Extended trade had increased the demand for money, and this, coupled with the unprogressive state of mining, had lowered prices. Any temporary excess of precious metals was absorbed by Eastern countries, *e.g.* India.

Thus one of the most sudden influxes of metal now happened when the absolute amount of currency was small. Compared with the stock already existing, the new metal was present in large quantity; not only was the effect great, but there was little lagging behind of the effects caused by the external stimulus.

The rise continued through the sixteenth century, with a break about the middle; it was most marked after 1550, the highest point being reached after 1600.

The result of the discovery of America was a great improvement in trade. The increase of currency must have had some effect; by increasing the convenience of exchange trade was stimulated, and many believe that a rise in prices has a healthful influence on production, though that effect must have been less important in early times. The mere increase of population would tend to have the same effect.

Two other causes contributing to the rise of prices in the sixteenth century should also be noticed. The first was

the bad state of the coinage due to the debasements of Edward IV. and Henry VIII., which lowered the value of the currency circulating; the second was that the theory of just price which stabilised conditions during the Middle Ages was beginning to lose force. Even in the sixteenth century production was commencing to provide for an open market rather than for direct consumption. This would introduce a speculative element into industry and trade, and tend to raise prices, apart from the question of redundant money.

Gradually arose a greater demand for money for trade purposes; *i.e.* its value in relation to goods in general rose, when production of precious metals had become constant. Thus prices fell gradually in the eighteenth century.

Again, the Asiatic countries, India, China, and Japan, constituted a "sink of silver," and now began the long "drain to the East" of precious metals. India especially absorbed immense quantities, chiefly for the purpose of hoarding, this being a country where the upper classes put a high value on ornaments. In Europe the precious metals passed to and fro from country to country as the balance of trade altered; if hoarding had gone too far, the consequent increase in the value of money (due to a limitation of effective supply) attracted the metals back again into circulation. India was almost insatiable; the current was in one direction only.

7. The Subsequent Fall in Prices

Thus the sudden increase in the gold supply in the sixteenth century had its effect in all parts of the world in due time. The secondary effect in Europe was a lowering of prices as the supply of money was limited through export and therefore its value was increased.

Both causes persisted through the eighteenth century, but the lowest point was reached about 1790, after which a new sudden rise took place. Prices nearly doubled in

the next twenty years. This effect was mainly due to important new discoveries of gold and silver, especially the latter, but also to paper money, the war, and bad harvests. In England the effect was partly due to the introduction of inconvertible paper, especially about 1810. One point must be carefully noted.

Effect of Paper Money. When a paper currency circulating side by side with the precious metals is depreciated, there are always two prices, the price in paper being higher. Obviously the general prices in 1810 would be unusually high, but the gold prices also rose. The existence of the paper may explain this, if the paper currency is of such importance that it lessens the need for gold. In time, of course, the latter will be exported as it becomes undervalued (in paper); but if notes are continuously issued, the demand for gold as currency will always be less than the ordinary, its value will fall, and prices will rise. This is probably a partial explanation of the higher gold prices of the period of inflation.

That it is not a complete one is shown by the fact that prices did not fall quite to the normal level after 1819. It is not so clear in this case as in the sixteenth century that the main cause of the rise of prices was the influx of precious metals, as conditions were more complex, but there seems to be little real doubt on the matter.

1810 was the culminating point and prices fell, though not much until 1813, on account of bad harvests, but they rose after the peace of 1815· (owing to Protection), and again to a great height in 1818, partly because improved trade allowed of the export of food and the import of bullion. Prices fell when the note was again made convertible, reaching a minimum in 1825. They remained fairly constant for some time, with minor oscillations, due to various causes, but fell to a new minimum about 1850 for reasons that will be discussed at length in the section following.

8. The Fall in Prices up to 1850 and the New Rise

This fall was largely due to a great expansion of trade. The effect of the peace was now altogether good; population was increasing greatly. The drain to the East was still important. The effect of improved trade on prices was so great as to overbear the great effect of the increase of bank currency. Generally, when trade awakens, credit improves at the same time; as there is a general increase of confidence, less gold is needed, and prices may even fall.

Gold was found in California in 1848 and in Australia in 1851, especially in New South Wales and Victoria. By this time transport had improved, and badly situated mines could be worked profitably. The result was a tremendous increase in the amount of gold brought to Europe.

This had much less apparent effect on prices than in Elizabethan times, or at least the effect was less striking. This can be easily explained without contradiction of the quantity theory. The absolute amount of gold in circulation was far greater than in Elizabethan times. On the quantity theory we should expect two separate additions to have the same effect if they were in the same proportion to the existing stock. A thousand pounds added to a million should have the same effect as ten thousand pounds added to ten millions.

Next, international exchange was much more delicate. Up to a certain point a country may keep its precious metals by raising its bank rate, but if the exchanges are greatly against the country concerned, bullion will be exported, as it will be profitable to send it away to buy the cheaper goods abroad. This will happen until prices have been brought down to a normal level by the loss of gold. Thus by this means a gold supply is distributed naturally among the different countries according to their needs; the metal will be nowhere superabundant.

In the sixteenth century, Spain, the Netherlands, and England obtained most of the American gold and silver

because prohibition of export had some little effect, and in any case the movement of money was risky and expensive. In the later nineteenth century England obtained much of the gold (to-day nearly all of it), but it was quickly shared by other nations. Hence the rise of prices in any one nation was comparatively small. The new supply was added to the stock of Europe rather than to that of one country.

Again the effect of the addition of currency material was overborne by that of other causes. It is conceivable that the final effect might have been the same as formerly, though delayed by other considerations. Economic life had become very complex, and a mass of habits had to be broken through before the effects would work themselves out. The change had to take place in stages.

9. Immediate and Final Effects of the Rise

Wholesale prices would probably be the first affected. These are easily made, are in the hands of merchants who are sensitive to every change in their economic environment, and they affect a large number of similar articles. Also, those commodities in common demand and sold in large quantities first rise in price. Retail prices follow at a distance, while those in distant parts where custom rules would rise only after a time. Wages lag behind general prices, while certain salaries, defined by custom or agreement, are not affected at all. Creditors, again, have to receive debts on the old basis.

In time, no doubt, the relative conditions of all classes will be the same, but this state of affairs is reached through a long period of dislocation. The greater the material interests of a nation and the greater the number of inextricably-woven bonds between the members of society, the more slowly will an increase of currency work its effects.

The case was complicated in the nineteenth century by the existence of credit, which was practically unknown from a commercial point of view in the sixteenth century,

when money was collected by means of partnerships. A cheque for £100 may in certain conditions be the same as a direct addition of that sum to the currency, and most credit instruments will have some effect at least in that direction. We may neglect the Bank of England note, as its fiduciary issue (*i.e.* against securities only) was exactly defined in 1844.

The addition of precious metals to the currency is certain to cause great differences in the number and character of credit instruments, but the exact effect cannot be foreseen. Conceivably the amount of credit may be lessened, as there is not the same need for economy in metals, but generally the effect is that credit improves. The development of bills of exchange and cheques, used as currency, may in theory occur to any extent; in practice confidence is lost if it is too great. There must be a solid foundation of metal. If the reserve increases, the excess of gold tends to be used as a basis for new credit. Hence in modern times a sudden influx of gold may cause a more than proportionate rise in prices.

This actually occurred. Though the rise in prices was far less sudden than in the sixteenth century, it was none the less marked when it did come, notice being taken of the existing stock of precious metals and the overflow of the new supplies into foreign countries.

Another effect must be noted; trade was stimulated. This caused a new demand for certain classes of goods, chiefly raw materials, and the prices of these slowly rose. On the other hand, the large increase in supply of certain manufactured articles caused their price to fall relatively or even absolutely. The cause of the stimulation seems to be that as manufactured goods are gradable and in the hands of intelligent entrepreneurs, their prices are easily affected by currency changes. Raw materials largely consist of agricultural products; these are more subject to customary laws, and their prices are less sensitive.

Again, many of the expenses of the employer are fixed. Such as his rent, if he possesses a lease, and perhaps salaries. Again, in charging the price for his products he includes a payment for the heavy initial expenses in laying down machinery, etc. This he calculates at first and the reckoning does not alter with changes in general prices.

Lastly, he can exert a certain control over his employees. These are not in a strategic position unless strongly organised, so that for a time he need not advance wages, while if improvement is continuous, these may always fall behind prices.

Thus, even apart from wages (which may relatively increase), the employer can keep his expenses below those required to make up for increase in price of the finished product. Entrepreneurs are active-minded, and they take advantage of their opportunities. Hence a general rise in prices precedes a time of industrial expansion based on greater, if more feverish, efforts caused by a sudden increase in prosperity.

Such improvement is largely based on a hollow foundation. First, only those trades are affected which can increase their output quickly and economically, *i.e.* those which obey the law of increasing return. Even here the employer is lured on to produce for a speculative market by a purely artificial stimulus. The excessive labour applied and the abnormal effort cannot be kept up, and the result in fact is usually a reaction, depression following prosperity. This will be developed below.

Further, other trades are actually harmed. Overproduction in one direction destroys the balance between agriculture and trade, and the result is an opposite effect in the former to that in the latter. In unfortunately-situated trades the price of the product is little increased, *e.g.* agriculture, while that of raw materials or other necessary expenses, *e.g.* wages, increases. Even if all prices are raised, they are greater in different proportions, and some

industries must exist in which production becomes more expensive relatively to the product.

About 1870 gold production began to diminish, but there was a sudden increase in silver production, chiefly from Nevada. Hence there began a serious alteration in the relative value of gold and silver, the latter becoming depreciated because of the excess of supply.

10. The Fall in Prices after 1873

The highest prices were reached in 1873. The increase of production of metals had spent its force. Again, apart from minor fluctuations depending on currency, trade was increasing. Banking became less active. Most important, the Continental countries gradually adopted the gold standard. France suspended the free coinage of silver in 1873, and Germany had adopted the single standard, other countries following its example.

Hence prices were now quoted in gold, and silver coins, being tokens, derived their value from the superior metal. A large amount of silver was thrown out of circulation, so that more work was thrown on its rival. The value of gold thus increased. On all counts, then, prices dropped after 1873.

The latter explanation is confirmed by the fact that in China, Japan, and India, which obtained most of the discarded silver, prices rose after 1873 because this was their standard metal. The difficulties lessened after about 1884, when more gold was discovered, and since then the balance has turned still more in favour of silver. The year 1885 was a year of low prices, but the minimum was reached about 1896; variations were irregular for a time.

11. The Rise in Prices in the New Century

Gold was discovered in South Africa and Klondike, and the natural result of a rise in prices followed. Prices rose on the whole till the new century; there was then a fall to

a minimum in 1902-3, and a rise to a high maximum in 1907 followed by a sudden fall. From then prices rose with some constancy till after the War.

The cause of the rise has been fiercely contested, and the quantity theory freely questioned. The increased gold supply cannot explain all; *e.g.* the maximum prices of 1900 and 1907 were due to increased credit. Bad harvests in parts of the world have decreased the supply of some articles of common consumption, and the absolute decrease in the number of goods has been comparable with the changes in currency; to put it in another way, the rise in price of some commodities, *e.g.* bacon, has been so great, and these are consumed in such quantities, that the weighted index number is materially affected. Further, England has suffered because other markets are growing up for the products of the virgin lands, and this effect is intensified by the adoption of tariffs in other countries.

We can be fairly certain in saying that while the new gold discoveries were at the base of the rise in prices,[1] the conditions of economic life are so much more complex even than in those of the middle of last century, that we cannot hope to find a single cause of the serious phenomenon which is having such important social effects.

This point cannot be over-laboured. As Hobson has shown, the gold discoveries at the middle of the nineteenth century do not explain the whole phenomena of rising prices, at least in the direct Quantity Theory sense. Gold probably exercised its greatest influence on prices by leading to a greater amount of credit at a low rate of interest which in turn provided a favourable field for rash speculation. But so did the passing of the Limited Companies Act. International disturbances between 1850 and 1870 in America, Europe, and the Far-East is another factor which must not be neglected.

[1] Down to 1914

Again, between 1850 and 1880 methods of production made an all-round advance. This would have reactions on prices in two ways. In its early stages it would tend to encourage speculative production and so raise prices; on the other hand, after a certain point, greater and cheaper production would effect a sharp fall, and so far as England is concerned, after 1870, she was no longer the world's workshop.

Against these facts, however, it should be noticed that the Committee on the Stabilisation of Agricultural Prices (1925) adopted a pure gold theory as an explanation of the price changes in the second half of the nineteenth century.

The future state of the gold supplies has been a highly controversial subject since 1919. It is argued on the one side that large areas of the world are hardly explored, and new deposits are sure to be found. Again, chemical processes, *e.g.* the cyanide process, have been invented which increase the yield from poor ores. Further, mining is not now an haphazard business; it is capitalistic, and no money is sunk unless there is a reasonable prospect of obtaining gold.

Against this view it is just as strongly argued that increased supplies of any magnitude are highly problematical, and that gold will tend to become more and more scarce relative to the demand.

The following table[1] will show the broad changes in the nineteenth century:—

	Average Annual Rise in Prices.
1800—1850	— 1·10 per cent.
1850—1873	+ ·35 ,,
1873—1896	— 1 61 ,,
1896—1905	+ 1 85 ,,

[1] Porter and Hirst, *The Progress of the Nation.*

12. Bimetallism

The bimetallism controversy was a result of currency fluctuations. In 1865 France, Belgium, Italy, and Switzerland formed the Latin Union, which Greece joined in 1868. The coinage was made on a common basis, and the relative value of gold and silver, fixed by law, was the same throughout the Union. It was hoped that this ratio would actually hold in practice. The principle of bimetallism is that of two money standards dependent on each other.

In a particular country bimetallism has continually been shown to be impracticable, because by Gresham's Law the undervalued metal is driven out and a single standard results. If a group of countries adopt the principle, it is held that the less depreciated metal cannot be exported into other countries, because the same forces are working to return it. If, say, an increase of production of gold occurs, its market value will fall and it will tend to be coined, as its value as currency is legally kept up.

It cannot drive out silver, because no other country will take it; hence gold is minted until its market value rises again, as a result of limitation of supply in the open market. It must always be remembered that the precious metals are also used in the arts.

The depreciation of silver made the question a pressing one; it is possible that if England had joined the Latin Union at this time the ratio would have been upheld, but monometallism won the day. As it was, the discrepancy between the market and legal ratios became too great; in 1874 the beginning of the suspension of silver coinage in the Latin Union took place, and monometallism followed in other countries, as in England in 1816. The increase in gold production closed the controversy.

13. Cyclical Fluctuation

The other great result of currency movements was the cyclical fluctuation of industry. Trade improved on the

whole in the nineteenth century, but in any small number of years it was almost as likely to be declining as advancing. Further, in such a short period there is no appearance of regularity. The fluctuations are generally accompanied by changes in prices.

When we study an index number for a few years, we note that prices vary from day to day and from month to month, but that, neglecting minor variations, there is usually a definite movement during the year, which may be continued into the next. Considering now the broader changes during a decade, we see that prices first rise for two or three years, say, then fall, and so on. Further, there are still broader movements, lasting, say, a decade, while the broadest changes may take a century or more to work their effects.

All these types are seen in the nineteenth century. We have considered the secular changes and explained these mainly by currency changes. Stanley Jevons (1835-1882) first studied the cyclical fluctuations, *i.e.* those which occur (according to him) at regular intervals. He noted that periods of high prices occurred about every ten years. Such a time was accompanied by expanding trade and improving credit, partly based on increased currency (in the wide sense), and partly due to more confidence following on more feverish production, which finally became unhealthy. When over-confidence and over-production were at their height, some event always happened which shook confidence. The shock was propagated through the country and a crash was the result.

Such a panic might be either financial or commercial. In the former case, bankers had lent too much money and traders had borrowed more than they could easily pay back. When confidence was shaken the banks tried to call in their loans, or applied for assistance to the Bank of England, where they kept their reserve. In some cases (*e.g.* in 1847, 1857, 1866) the Bank was unable to meet the demand.

Matters might not reach this stage. Often the traders, presuming on their temporary good fortune due to the rising prices, produced too much and the market was glutted. The difficulty of marketing the produce led to decreased production, and a commercial depression ensued.

14. Jevons' Theory

At the bottom both kinds of depression are one, depending on financial considerations. Jevons recognised this and brought forward his famous theory. He knew that sun spots occurred every decade or so. He supposed that these decreased the heat of the sun, ruining the harvests in certain parts of the world. The value of food imports into England was increased and the balance of trade with agricultural countries was against us. Hence bullion had to be exported to restore the balance, and the result was monetary stringency. Prices fell, credit and confidence suddenly collapsed.

The theory is to-day largely discredited, but there was probably some truth in it.[1] The argument against it is that crises are due to a periodical expansion of credit during which a safe reserve is not kept, so that when credit is questioned there is a panic. After this comes a period of caution and bankers keep up their reserve.

This explanation is doubtless true, but it does not preclude the possibility of deficient harvests also working their effects. Opponents of the theory point to the fact that depressions are now commoner and less severe,[2] but we must also remember that our food materials are now gathered in from all parts of the world, so that universal scarcity never occurs.

[1] Down to 1870 there was a correlation between the state of the harvests and trade fluctuations.

[2] The present depression is more than an ordinary nineteenth-century crisis. There is a tendency to-day to deny any general theory and to argue that every crisis has its own particular causes.

15. The Commercial Crises: Nineteenth Century

There is, of course, no fundamental difference between a commercial and financial crisis. As a rule, the two aspects are inextricably entangled in every depression, and can never be isolated practically; but some distinction is advisable for the sake of clearness. The purely financial aspect of the nineteenth century crises has been examined elsewhere.[1] It now remains to offer a few supplementary remarks on the second aspect.

The first of the great commercial fluctuations resulting from the conditions brought into being by the Industrial Revolution followed the Peace after Waterloo. A wave of speculation permeated industry; goods were exported to Europe and America without any regard for the realities of those markets, and with the failure to effect sales, confidence was shaken, credit facilities were withdrawn, and a collapse followed.

This crisis of 1816 marked the appearance of a new phenomenon in industry. Under the political and social conditions prior to 1760 a fluctuation of this kind was practically impossible. Capital and credit were too limited in quantity, and the market was too narrow to allow production to far outstrip the limits of effective consumption, or to introduce into trade that speculative element so marked a feature of the nineteenth century.

The second great crisis due to speculative over-trading (*i.e.* misdirected production) occurred in 1825, with the attempted commercial exploitation of the Spanish colonies of South America.

In the crises of 1837 and 1866 the financial aspect predominated. This was also the case in 1847, though this crisis may be regarded too as an over-production of railways, *i.e.* a too rapid expansion of the system relative to that of the other resources of the community.

[1] Chapter X.

The crises of 1875 and 1883 were merely extreme points of a general depression which lasted on until after 1890. This depression, which has points of contact with the present troubles, was world-wide, and although it was doubtless the product of multiple causes it was not the effect of financial speculation and banking mismanagement as in 1839 and 1866.

In other words, the industrial and commercial elements were of first importance, although, as has been noticed elsewhere, this view is not above criticism. The chief phenomena observed in England were a glut of foodstuffs, and cheap manufactured goods from America. Apart from any question of foreign competition, improvements in industrial technique had thrown the economic system into a confusion from which it only very slowly recovered.

16. Wages

On the Quantity Theory we should suppose that wages, being the price of labour, would rise in the same proportion as general prices. As a rule, however, they lag behind. If the productivity theory of wages worked automatically and without hindrance, then wages would rise at once; if Adam Smith's conception of a customary remuneration held good, we should expect them to increase extremely slowly. In practice, a middle course is generally taken.

Jevons, in addition to his statistical work, had great powers of analysis, mathematically and otherwise; he could dissect a complicated problem into its elements. He it was who in England first formulated the " marginal " theory in economics. We may give a much simplified application of it to wages by saying that these are fixed by the remuneration obtained by a workman whom the employer is just willing to engage. The master will pay no more than is necessary, while if he offers less than the " marginal " employee requires, the latter will refuse to work. As the employer must pay equal wages for the

same work to all his hands, the wages paid to the marginal worker must govern the rate for the whole, though of course superior ability obtains a greater reward.

Now suppose that prices rise; if the result is largely increased production, so that more hands must be taken on, the newcomers, being less efficient, will obtain less remuneration than the old employees, and yet they will probably not work unless they receive the wages formerly paid. Hence wages may rise.

If there is no such pressure on the employer to obtain more labour, the marginal worker may be obliged to accept the old pay, and wages may not rise, at least to the same degree as general prices.

17. The History of Nominal Wages

Thus money wages vary in purchasing power as prices vary, in addition to changing with the course of trade. First, let us consider the nominal remuneration. For some time before the Black Death wages were fairly constant, but rose suddenly after that event. They then rose gradually till about 1500, when they increased more quickly, very suddenly improving about the middle of the century, when high prices began to produce an effect. The rise continued slowly till about 1700, but wages were fairly constant in the first half of the eighteenth century.

The Industrial Revolution, of course, caused a great increase in wages in new trades. The pay of the old handloom weavers declined considerably, but general wages rose because the large demand for labour by the new industries denuded other trades of their workers, lessening the supply of labour and increasing its market value. This effect continued, both in agriculture and industry, till about 1820.

A sudden fall followed, lasting for ten or twenty years; then there was another quick rise lasting until about 1875. Wages fell to a minimum (for that period) in 1879, and

again in 1886 (after a rise). A steady increase up to 1900 followed. There was another temporary fall till 1904-5, and a maximum in 1907. Wages fell during the next two years, but have risen since 1909. They were in 1914 nearly double what they were in 1850. Man's mastery over nature has increased, and improved transport has cheapened raw materials; wider markets have been discovered, and the increasing population has made possible manufacture on a large scale. If we neglect minor variations, wages show a continuous increase.

The following tables[1] will afford some illustration of the general course of prices:—

AVERAGE WEEKLY WAGE OF AGRICULTURAL LABOURERS IN ENGLAND AND WALES.

1767-70	7s. 3d.	1851	9s 7d.
1795	9s od	1860	11s 7d
1824	9s. 6d	1870	12s 5d.
1832	10s 3d	1880	13s. 9d.
1837	10s. 3d	1892-3	13s. 4d.

AVERAGE WEEKLY WAGE OF COTTON SPINNERS IN THE MANCHESTER DISTRICT

1806	24s 2d.	1849	21s. 7d.
1810	30s 2d.	1859	24s 1d.
1815	28s 11d.	1870	27s. 8d.
1819	28s 11d.	1880	33s. 6d.
1833	27s. 1d.	1886	35s. 7d.
1841	22s. od.	1893	37s. od.

18. The Meaning of Real Wages

It is another matter when we discuss the history of real wages. It is of little use to double nominal wages if general prices are more than doubled. Pay in London is

[1] Bowley, A. L.: *Wages in the United Kingdom in the Nineteenth Century.*

higher than in the provinces, and the apparent discrepancy causes a large influx into the capital city. Yet it is probable that the workman is in a better financial condition in the country than in London, because his surplus of income over expenditure is generally greater. It is those expenses which it is impossible to avoid, like rent, which make the cost of living so much higher in the town.

To take an example at the other extreme, many men are attracted to the colonies by high money wages or salaries which are in a large degree necessitated by increased cost of conventional comforts, and even of necessaries, in a more primitive community. Wages, then, taken singly are meaningless for practical purposes; they must be combined with prices.

Engel's Law states that the lower down the social scale we go the larger is the proportion of the total income spent on food and other strict necessaries. The same law holds good as we pass from a highly civilised to a primitive community, and from a country at the present day to the same country in past ages. In very early times, when wealth meant hospitality and display, practically all the income was spent on food or clothing.

A century ago, when pessimists like Malthus and Ricardo were applying the iron law of wages, the remuneration of the workers was just sufficient for existence; a shelter was sufficient to call a home, and bread was everything. At the same time the Corn Laws were in operation.

Hence, in these cases, and to a less extent during mediaeval times, the prosperity of the labourer was closely bound up with the price of bread, and therefore of wheat, in a way which it is almost impossible to realise at the present day. Thus the most convenient way to find real wages is to compare the change in money wages with that in the price of corn. (N.B.—Changes in the denomination of money, *e.g.* the change in the number of shillings in the guinea, must always be carefully noted.) We could find

what amount of corn is purchasable by the money wages at any time; not that all the income will be spent in this way, but the changes in the quantity which could be bought will supply a test of real wages.

In the last century, especially since the repeal of the Corn Laws, wheat has taken a less and less important place in the workman's budget, so that the above method will fail, giving too high real wages, because the income is no longer spent largely on bread but also upon expensive conventional necessities. Hence the index number must be used. If wages have increased in a less ratio than the index number, we may assume that real wages have fallen, if we can be sure that the articles represented in the standard are those which are largely used by the working classes.

19. The History of Real Wages

In using the wheat method we must be careful to note that though it is our best implement it can give us no certain results. Still, the conclusions we reach are confirmed by political events. A rise in real wages occurred before the Black Death, and after that had done its work there was a greater rise, owing to the lessened supply of labour. This effect continued till about 1450; and though there were fluctuations for fifty years there was no great permanent change.

The lack of labour had led to enclosures, and this lessened the demand for workers, while at the same time, after 1500, the rise in prices following on the discovery of America took place. Thus there was a serious fall in real wages, broken about 1530, and also early in Elizabeth's reign, but lasting till about 1630.

An improvement followed, partly as a result of the fall in prices (though there were great fluctuations in the seventeenth century), and this lasted till the eve of the Industrial Revolution. After about 1750, although money

wages increased greatly, prices rose still more, and real wages fell for the reasons already mentioned, the lowest point being reached soon after 1800.

A slow rise followed, lasting until 1850, and after that date there has been on the whole a steady increase of real wages (subject to fluctuations), very marked when measured by the wheat method, and quite noticeable when examined by the more rigorous index number.

Fluctuations have not been due to any real retrogression, but to temporary causes, such as the reaction on trade after a burst of speculation, or a sudden rise of prices. Probably these wavelets in the large waves of progress always did occur, but they have become more important since the Industrial Revolution broke down mediaeval stability of production and sale, while even changes in consumption, *e.g.* fashion, work in the same direction.

The break down of the Latin Union and the general European introduction of monometallism, again, made both the gold countries and the Eastern silver-using countries more sensitive to changes in metal supply, so that prices change more easily, and real wages are thereby affected.

In the new century there have been depressions, bringing unemployment and other evils in their train; there have been times when social unrest has been more serious, when wages have risen, partly as a result of strikes, but prices have risen faster. A minimum of real wages was reached in 1904-5, another in 1910, while since 1920 nominal wages have been falling or stationary, but real wages have been rising.

CHAPTER XII

STATE CONTROL: THE FACTORY ACTS

1. Introduction

State control of industry has a long history in this country. It can be traced back to Plantagenet times, when, under the early Edwards it began to be felt that the nation was a single whole in an economic, as well as in a political and military sense, not a collection of similar independent manors.

The gradual growth of this control through the fifteenth century into a developed and national system known as mercantilism under the Tudors and the Stuarts, and Parliamentary Colbertism after the Revolution of 1688, was outlined in Part I.[1] It was shown there[2] that the control of industry in the interests of national power was not the only object of industrial regulation in the sixteenth century. The State recognised and assumed a responsibility for the conditions under which the labourer earned his livelihood, and numerous Acts of Parliament were passed affording him protection according to the ideas of that time.

This view that the State had a definite duty to its weaker subjects in industrial matters persisted into the eighteenth century, for when the Combination Act of 1727 was passed against weavers' unions in the textile trades, the Privy Council intervened in favour of the workers against the attempts of the masters to lengthen the working day in the following year. State protection of the worker, however, had been on the decline since the Civil War between Charles I. and Parliament. Elizabethan legislation

[1] Chapters IV., V.

[2] See Tudor Poor Law Legislation.

received its first great shock under Cromwell. The assessment of wages by the Justices of the Peace, under the Statute of Artificers, became in many cases a mere formality; apprenticeship was still necessary in most trades, but dissatisfaction with the system was beginning to show. As the central authorities lost their power in local matters, while local control had almost ceased, manufacturers became more independent.

2. The Effect of the Industrial Revolution

The Industrial Revolution necessitated a change. The old theory of enforcing labour in specified places and in a defined manner had disappeared, but the Justices had great powers of control; in practice they supervised contracts, and thus made possible a new method of promoting stability and an adequate length of service; in theory they fixed wages, and their powers in this direction tended to revive later.

But the tide was running too strongly in the opposite direction. The magisterial assessment of wages in practice was seldom resorted to after 1750, though an Act was adopted to enforce wage-rates among the Spitalfields weavers as late as 1773. The terrible suffering among the working population towards the end of the eighteenth century, the results of the changes in industrial organisation, led to a short-lived revival of the demand for a State-regulated wage, both among industrial and agricultural workers. The famous Arbitration Act of 1800 tried to regulate rates of wages for weavers in the cotton trade, but the measure proved futile. A further ineffectual attempt was made in 1808; and in 1813 the assessment powers of the Justices ceased. A year later, the apprenticeship clauses of the Elizabethan Law, even yet operative in some measure, also disappeared, and *laissez-faire* in industry gained a complete, though temporary, victory.

The triumph was not destined to be permanent because

the evil conditions of the early stages of the factory system outraged the humanitarian feelings of influential leaders of public opinion. As early as 1784 the Manchester magistrates passed resolutions limiting the hours of child labour; and in 1802, before the repeal of the Elizabethan labour laws, the first Factory Act was passed.

But the resolution of the Manchester magistrates and the Factory Act of 1802 should be regarded as an extension of the old Poor Law, rather than as an attempt to exert control over industry. It was an essential feature of the Act of 1601 that destitute children should be apprenticed to a trade, and throughout the seventeenth and eighteenth centuries some responsibility for their welfare was attached to the local authorities, at least in theory.

The *laissez-faire* victory was obtained by the determined action of the new and energetic race of manufacturers, who had managed to impress their views on Parliament. Only a limited section of the population was represented in the Commons, and in those days of bribery, wealth could always gain its end. Hence the old aristocratic governing monopoly was breaking down; a new, even richer, and quite as selfish a race of legislators as the aristocrats, grew up.

3. Whig and Tory

The manufacturers favoured the Whig interest, the aristocrats were Tories. On the whole, the former represented a forward movement, the latter conservatism. The two types were strongly opposed to each other in character, in habits, in antecedents, and in cast of mind. The fact that they were on opposite sides in a time when political prizes were valuable made the bitterness more acute. The material interests, again, of the Whigs were opposed to those of the landowners; if there was no duty on corn, the workmen would require less wages, and profits would be higher. When the manufacturers,

however, obtained protection, the landowners found that prices increased.

Hence it is not surprising that the Tories looked on the new industrial system with misgiving. The manufacturers were advancing and becoming serious rivals, and their power became so great that though class legislation was still supreme, it was not now carried on for the benefit of the landowners. Again, the Tories naturally looked back with fondness on old conditions, when England was in many ways a happy country, in which seething discontent had not appeared. The Elizabethan system, so carefully and solidly built that it had taken two centuries to overturn it, still had its adherents.

Thus we have the curious phenomenon that, at the same time as the old restrictions were being swept away, legislation of a totally new kind appeared which had its inspiration in the very system which had been overturned by the progress of events. In so far as the Elizabethan system was carried on for the benefit of the workers, as it certainly was to some extent, even though they might be indifferent or even hostile to the laws which fettered their liberty, so far was it philanthropic. Though the laws against beggars were stringent, and had the effect of limiting the independence of the working classes, yet the result was, as it was intended to be, an improvement in the material, moral, and social conditions of the same class which was restricted.

4. A New Departure

Elizabethan legislation was necessitated by the evils inseparable from great and sudden progress. Some similar methods had to be employed now that the proletariat was fully developed by the new conditions. Still, there was one great difference; now, for the first time in English history, there was a direct attempt, lasting for a considerable time, to alleviate the conditions of the working classes.

In Elizabeth's time the destitute had been specially treated, but the able-bodied were controlled in such a way that they had a chance to help themselves. There was no question of a lower order oppressed by a capitalist minority.

On the other hand, the attempt to alleviate the condition of the working classes did not come to fruition till after the middle of the nineteenth century. The first beginnings were on Elizabethan lines, and involved no new departure; the pauper children only were affected.

The philantrophic Tory tradition aimed at smoothing away the effects of a Revolution with which it was not in sympathy; old conditions had disappeared, and the conservative statesmen did just what Burleigh and his fellows would have done. We must not suppose that the Tories were morally very superior to the Whigs; the former, with all their paternal care for the labourer, treated him as an inferior, and the sentimentalism of the Speenhamland policy did incalculably more harm than the cold-self-interest of the new individualistic manufacturers; the economists, at least, were sincere in their support of the new system and their dislike of paternal legislation.

In one respect the manufacturers were too powerful for their rivals. Able-bodied adults were always held during this period to be capable of looking after themselves. The worst sufferers in this respect were the handloom weavers, and as these were direct rivals of the capitalists they received little sympathy. The pity of it, and the cause of the whole trouble, was that these hand workers were displaced by children; it did not need an expensively-trained workman to move a machine, and even if the work of boys was less efficient, it was far cheaper than that of adults.

5. The Case of the Reformers

The *laissez-faire* argument was met by the fact that children are under the control of parents and can neither look after themselves nor do as they please. Many parents

were utterly selfish, some were cruel and callous, while most held the opinion that a man can do as he pleases with his own. For the sake of the children, and of the future generation, the Tory reactionaries saw that the State had to step in.

This was not all. Pauper labour was eagerly sought by mill-owners, especially in small distant mills. The guardians were pleased to rid themselves of their burdens, and were not likely to institute inquiries which might lead to their return. It is important to notice that the pauper and some of the non-pauper children were regularly apprenticed. Pauper children had been apprenticed before, but the practice became much commoner.

The State had upheld the apprentice system, and thus in a way had made itself responsible for its good working. It was a short step to the theory that, if serious economic evils existed in this connection, the State was bound to interfere. Continuity with past legislation was made possible; the *laissez-faire* principle itself was not in reality contravened.

Further developments of course occurred; logically, the scope of the first factory legislation had to be widened, while the new method of control, from being a mere conservative defence against change, became inspired by progressive and revolutionary ideals.

As regards the details of the evils which necessitated intervention, we may first note that the new money-making race of employers considered a factory from the point of view of profit, and the actual building was constructed as cheaply as possible; the question was, whether it would hold the workers. Thus sanitation, ventilation, and so on were deficient, and the most serious injury to health resulted.

Again, the work done by the employees, especially the children, was not so much impossibly hard, as deadening and monotonous, involving the strain resulting from a forced continuous attention. Hours were so long that

hardly enough time was left for eating and sleeping, while leisure was impossible. The children lived the life of a machine when working, and at other times that of a beast. Worst of all, the resulting deterioration, mental, moral, and physical, was perpetuated in the next generation, which started at a still lower level, causing evils yet more serious.

The small factories were the worst, and the water-mills were worse than their steam rivals, which were not finally set up until 1830. No one would interfere with an unscrupulous master in a distant valley.

The local authorities were much to blame. In the seventeenth and eighteenth centuries they had trained pauper children in houses of industry, largely with the object of lowering the price of labour by increasing its supply beyond the normal, while later they connived at the exploitation of children by the masters.

6. The Manchester Board of Health

In 1784 a fever occurred in certain Lancashire cotton mills, and a local inquiry elicited the information that it was a result of the insanitary conditions of work by pauper children. The causes were carefully and correctly elucidated, and as a result the justices recommended increased control by the central authority. The Manchester Board of Health was instituted in 1795 and came to certain conclusions.

7. The Factory Act of 1802

These passed into statute form in the first Factory Act, 1802, strictly a new departure not only for England, but for any country. No apprentice in any cotton or woollen factory could henceforth work more than 12 hours a day, and nightwork was forbidden. Ventilation was enforced, and the factory walls were to be whitewashed at frequent intervals, for sanitary reasons. The apprentices were to

be granted sufficient sleeping accommodation, and were to be properly clothed. Some provision was made for education. Visitors were to be appointed for inspection purposes, while the justices were to enforce the law.

The Act was extensively evaded, and its direct beneficial effect was small. The justices did not use their powers, and the inspection was inadequate. In some places good results followed, *e.g.* in the West Riding, where the law was enforced. Its real importance lay in the fact that it was a beginning; the Act could be justified on individualistic principles, and still it opened the way to the control of adult men in later years.

A blow was dealt at the apprentice system. If a parent chose to send his children to a factory, there was no remedy for oppression; the parent in theory still controlled the child. Now it was to the interest of the employers to use only unapprenticed workers. The slave trade in pauper children still continued; these were engaged nominally on short contracts. In reality escape was impossible. The children were bound together in gangs and sharply controlled; they were ignorant of their real state, and in any case there were no alternative conditions of employment.

Thus at a stroke the master freed himself from legal obligation to clothe, feed, and educate his employees, and also from the working of the Act of 1802. The former result was the less harmful to industry as a whole in that new conditions no longer required an elaborate technical training. The latter was beneficial to the individual employer, in so far as he could still receive a batch of pauper children, work them to death, and apply for another contingent; but in the long run the effects on industry through the deterioration of labour were bad.

8. Robert Owen. The Act of 1819

Robert Owen, in addition to his theories, had a certain practical genius, and his experiments at New Lanark

proved at least that well-treated workmen produce good results. Hence he carried on an agitation for a wider range of central interference and more effective control. Unfortunately, his impracticable communism had set the economists and others against him, and the Act of 1819, which resulted from his efforts, was a great disappointment to him.

It was confined to cotton factories. Here the use of steam power was most important, and in these larger mills apprenticed labour was not sought after, so that there was no legal control. The Act made a little improvement, and was wider in aims though narrower in range (the woollen mills were exempted) than the earlier law. Employment for children under nine was prohibited, and the twelve hours' day was intended to include "young persons" under sixteen. Night work was prohibited.

Like the former Act it was evaded, as inspection and enforcement were inadequate, but it showed an intention of dealing with a difficult subject. Child labour was held to be necessary, and the natural corollary was that the children should be protected.

An agitation was carried on in the next decade, and small amendments were carried in 1825 and 1831. In 1830 Richard Oastler went on his tour through the West Riding, and had a great effect on the working classes; at the same time Sadler was working in the Commons in the same direction, and a year or two later Ashley, who had previously done good service for lunatics, joined them.

9. Ashley (Lord Shaftesbury). The Act of 1833

Anthony Ashley Cooper (1801-1885), afterwards seventh Earl of Shaftesbury, was a great social worker, possessing fewer of the weaknesses of his class than the ordinary philanthropist. He had set his mind on a general Ten Hours' Bill; Sadler had been defeated in 1831 in an attempt to pass such an Act, and Ashley then carried on

his work, introducing a Bill in 1833. The Government introduced an amendment attacking the general principle, and henceforth took charge of the Bill themselves. Ashley still supported it, and his own suggestions formed the basis for a ten hours' day for men.

The passing of the Act marked a great advance, and was based on the findings of a Commission earlier in the year. All textile mills were affected. Children from eight to thirteen could only work 48 hours a week and nine in any single day; the twelve hours' maximum was extended to "young persons" of eighteen. Most important, inspectors were appointed. These were given large powers; they could make rules in special cases and could enforce penalties. Being appointed by the central authority, they were independent of the justices and the employers.

The wider range of the Act was necessitated by the spread of capitalistic methods into all textile industries. Even in the West Riding, in the conservative wool trade, old conditions had almost disappeared. From the first the new cotton industry, having thrown over old restraints, had been the object of attention; now that the most progressive industry had been shackled, against all warnings of the classical economists, with little apparent evil effect, the time had obviously come to extend operations. Though the *laissez-faire* feeling was growing, in this direction the masses had gained a victory over their rivals of the middle classes. Hours had been shortened in the teeth of foreign competition, and the result had not been the ruin of English manufacturers.

Excuse for further interference there was in plenty. The Report of 1833 had disclosed a frightful state of affairs. The worst of the population had been gathered from all parts of the country and collected in the North Country towns. A factory type had grown up, often weak and even deformed in body, often with hereditary diseases, deficient in mind, and doubtful as to morals. In the early

years of the century the term " factory hand " was almost one of disgrace.

The Commissioners noted that this was the material out of which the working population was constructed. England no longer depended on its yeomanry, but upon pauper workers. Whatever was the immediate result to employers, a healthy nation demanded healthy and efficient workers, and no cost was too great to achieve the aim. Much of the damage was irreparable, and the old conditions have left their mark in the largest towns to this day, but further deterioration could be stopped.

10. The Ten Hours' Day

The next ten years was given up to agitation for a general ten hours' day. Passing over mining legislation, the commencement in 1843 of a series of sanitary commissions must be noted; henceforth factories were partly considered from this point of view. In 1844 the twelve hours' day was granted to women and the half-time system for children instituted. In the same year the extensive powers of the inspectors were somewhat curtailed.

In 1847, after a long struggle, the Ten Hours' Bill was passed. The principle had aroused bitter opposition from the manufacturers since 1844, the argument being that the country could not afford to lose the last two hours of industry. The attitude of the Liberal free traders towards the Factory Acts from 1844-47 was really an offshoot of the wider struggle between agricultural landlords and manufacturers over the repeal of the Corn Laws. The Tories hurled reproaches at the manufacturers for the condition of their operatives; the manufacturers replied with stories of the degradation of the agricultural labourer, and suggested to the Tories that if they really desired to benefit the factory operative, they should repeal the Corn Laws and cheapen the price of his bread. The free trade argument against the Ten Hours' Bill was that the reduc-

tion of hours would raise the costs of commodities, and incidentally, food; while the reduction in wages following the shorter working-day would, at the same time, diminish his purchasing power. The Tory reply to this argument was that the increased use of machinery necessitated a shorter working day to prevent the periodical glutting of the market with goods; and that further, the reduction in hours would be counter-balanced by the greater efficiency of labour, so that, in the long run, production, and consequently wages, need not suffer. The Bill passed in 1847, not so much because the movement had gained the support of such influential Whigs as Palmerston and Lord John Russell, but because; on account of the severe trade depression, it was difficult for the owners to keep their mills working even ten hours per day.

The Bill applied to women and young persons only, but the result was, as the promoters anticipated, that men were gradually affected owing to the conditions of factory work. The immediate effects, however, were by no means favourable to the classes the Act was intended to protect, for the factory-owners introduced the relay system in order to comply with the new regulations without curtailing the time between the opening and closing of the mills.

The result of this was the Factory Acts of 1850 and 1853, which fixed by law the *normal day* for women, young persons, and children. Normally, the machinery was only allowed to run between stated times—6 a.m. or 7 a.m. to 6 p.m. or 7 p.m.; hence this approximation of the legal working day to the legal period of employment made the Ten Hours' Act a reality for all.

11. The Fencing of Machinery

The dangers from machinery to which women and young girls were exposed in factories by reason of their customary dress were reported upon by the Inspectors as early as

1840. As a consequence of their agitation an Act was sanctioned in 1844 which prohibited women and children from passing by, or working near, unfenced engines, fly-wheels, and machinery. In 1856 this regulation was extended to horizontal shafting, but owing to the opposition of the owners, it was restricted to those parts of the mill where women, young persons, and children were employed.

12. Extension of the Factory Acts to Allied Trades

Factory legislation had been justified; each shortening of the working day led in the long run to an increase of production; hence, in spite of the wail of the manufacturers that the system must either be modified, or that the industries of England would decay, the period 1860-70 witnessed an extension of the Acts, first to industries allied with the textiles, and later to non-textile trades.

The undoubted benefits conferred on the textile workers served to throw into high light the miserable conditions prevalent in similar occupations—lace factories, and print, bleaching, and dye works. In many respects, the conditions under which women and children worked in these industries were much worse than in the textiles before the latter were regulated. Gross cases of overwork were common in the print works both in England and Scotland, and thousands of young girls worked in an unhealthy atmosphere, under bad sanitary conditions, sometimes sixteen to eighteen hours a day.

When Lord Ashley intimated in Parliament that he did not propose to remain content with the Factory Acts restricted to textiles only, he incurred the bitter opposition of both Graham and Cobden, both of whom argued that it was futile to legislate for industries in which labour was not highly concentrated. In 1857 a Select Committee of the House of Commons reported unfavourably to legislation, but three years later Brougham revived the matter in the House of Lords. During these years Sir James

Graham and Roebuck were converted to the principles of factory legislation, and with their support the Acts were extended to lace factories, with certain reservations, in 1862; and to the bleaching, dyeing, and calico-printing industries before 1868.

13. Extension to Non-Textile Trades

Almost before the movement for the inclusion of trades allied with textiles was fairly under weigh, Lord Ashley (Shaftesbury) succeeded in getting a commission of inquiry appointed to examine the conditions of employment of young persons and children in the non-textile trades. By this time, some of the sting had been removed from the opposition by the recognition that shorter hours do not necessarily mean a smaller output of products; and also that the increasing complexity of mechanical processes necessitates machine-tenders with vigour and vitality, otherwise much spoilt work results. The better type of employer began to look with favourable eyes on the efforts of the State to establish a healthier system.

The first Report of the Commission, issued in 1863, exposed the horrors of the pottery and lucifer match trades. In the pottery trade the slip-makers suffered from asthma and bronchitis, caused by the damp and steam; and the flat-pressers, jigger-turners, and mould-runners, from phthisis and other diseases of the chest, brought on by heat and dust. The conditions in the match-making industry were even worse, because in addition to long hours in badly-ventilated rooms, the match-makers suffered from a disease known as necrosis of the jaw-bone. Many of the Birmingham hardware manufactures were found conducive to chest complaints on account of the dust generated in the different processes. The work-rooms in the clothing trades were usually found overcrowded, badly-ventilated, and insanitary; and in many cases the hours of work were excessively long.

In the next year, as a result of the report, the pottery, match, cartridge, paper-staining, and fustian-cutting trades were brought within the scope of the Factory Acts. The special significance of the Act of 1864 is that a domestic industry, fustian-cutting, was brought within the ambit of State control. In 1866 a Sanitary Act was the means of control of many trades not hitherto affected; and in 1867 the Factory Extension Act brought under regulation blast-furnaces, copper mills, iron and steel mills, forges, and foundries, metal, machinery, and glass, paper, tobacco, printing, and bookbinding works. The special provision for dangerous trades, first made in 1864, was extended in the case of the glass and metal trades. No women or young children were to be employed in melting or annealing glass; no women, young persons, or children were to be permitted to take meals in any part of a glass factory; and no child under eleven was to be employed grinding in the metal trades. Of not less importance was the extension of the term " factory " to any building in which more than fifty persons were employed in a manufacturing process for gain.

14. Factories and Workshops

In the same year a Workshop Regulation Act was passed, and a distinction between workshops and factories, which has persisted, originated. This Act was made applicable to any establishment in which less than fifty persons were employed, and was fairly comprehensive. All home industries were thus embraced except outworkers. No child was to be employed under eight years of age, and below the age of thirteen children could only be employed half-time. Women and young persons were limited to an actual working day of ten and a half hours; the legal day, however, might vary between 5 a.m. and 9 p.m., and control was thus rendered extremely difficult. The administration of this Act was entrusted to the local sanitary authorities, but the expedient was a failure for the

local authorities failed to enforce the law. In 1871 the general, and in 1878 the sanitary supervision of workshops was transferred to the factory inspectors, and although a new class of junior inspectors was created to cope with the enormous amount of additional work involved, the staff was inadequate to deal with the new problems for many years. In 1874 the hours of labour were reduced from 60-57 hours per week, and the minimum age in factories was raised to ten years. The next year a Commission was appointed, leading to the Factory and Workshops Act of 1878.

The Act of 1878 removed the arbitrary distinctions between factories and workshops as places where more or less than fifty persons are employed. With certain reservations, it defined a factory as premises in which mechanical power is used in the manufacture of articles for profit; workshops were defined as places of industry where mechanical power is not employed, and were again divided into other classes which were differently treated by the law. In some respects, however, the Act had retrograde tendencies due no doubt to the depression in trade. Women's and domestic workshops were left with unregulated hours, for example; on the other hand, the employment of children and young persons in dangerous branches of the white lead and other trades was forbidden, and it was provided that fines for neglecting to fence machinery might go to those injured, or their families.

Later amending Acts followed, which were succeeded by the Factory and Workshop Consolidating Act of 1891. The basis was unaltered. Sanitary conditions were more prominent, and provision against accidents was made more effective. Children under twelve were prohibited from working in any factory or workshop, and this change in the minimum age, made possible by the growth of wealth and by a better spirit among parents, was made effective. The dual system of administrative control was again

introduced by transferring the sanitary conditions of workships to the province of the Public Health Acts.

15. The Employers' Liability Act, 1880

A second movement arising out of the evils of the factory system was the demand for compensation for injuries sustained in the course of employment. In its early stages machine industrialism involved an immense amount of suffering, as was made clear by the evidence of the Factory Commissioners of 1833. According to this report, work-people were abandoned from the moment an accident occurred, their wages were stopped, no medical assistance was provided, and no compensation was afforded whatever the extent of the injuries. In 1837 the position of the operative was rendered still more precarious by a judicial decision which exempted an employer from liability to one servant, for injuries due to the neglect of others in his employ. Prior to this decision, an injured operative had Common Law rights against the master, though in practice these were seldom enforced on financial grounds alone.

Freed from financial liability, employers had no incentive to take necessary precautions against accidents, the frequency of which may be judged from the Inspectors' Reports. It has already been noticed that between 1844 and 1878 various measures were taken to fence in dangerous machinery. Accidents, however, were still frequent even among the partly-protected classes, women, young persons, and children. The position with respect to adult males may be judged by the fact that between 1872 and 1876, 850 workmen were killed or injured by boiler explosions alone.

These were the conditions which the Employers' Liability Act of 1880 proposed to remedy by establishing the workman's right to compensation for injuries received in following his employment. An impetus was thus given to the invention of accident-prevention devices, as well as to the exercise of greater care in workrooms and factories.

In 1897 the Act was made more stringent, and in 1900 was extended to agricultural labourers. The movement approached practical completion in the Workmen's Compensation Act of 1906, which extended the principle of employers' liability to almost every class of the labouring population, including domestic indoor and outdoor servants.

16. The Sweating System

During the first half of the nineteenth century, factory legislation was inspired mainly by humanitarian feelings; after 1880 the movement changed in character somewhat. This was due, no doubt, to the decline of individualism before the growing sense of the organic unity of society, and the consequence was that the problem of industrial health and safety began to be considered in relation to the welfare of society as a whole. The Factory Act of 1891 made the first assault on the sweating system by requiring every factory and workshop employer to furnish lists of his outworkers, their places of employment, and their rates of wages. The exemptions granted to women's workshops by the Act of 1878 were repealed, and inspectors were given a fuller right of entry. In 1893 the Board of Trade was empowered to intervene when unreasonably long hours were worked on the railways, and the Home Office tightened up the regulations with respect to unhealthy and dangerous trades. These administrative measures paved the way for the Factory Act of 1895 which fixed the working week for children at thirty hours, and sixty hours for young persons and women; raised the age limit for night work to fourteen, and brought laundries under inspection. The Home Secretary was allowed to regulate employment in dangerous trades, and to make rules for workshops where men only were employed.

It was, however, the Report of the Lords' Committee in 1890 that first opened the attack on the sweating system from the wages point of view, and led to the movement

for a legal living wage. This ideal did not get beyond the socialist agitators for many years, but the formation of the Women's Industrial Council and the Anti-Sweating League at length gained support for it in Parliament. In 1908 Sir George Toulmin introduced a Bill which proposed to establish wage-boards with power to declare a minimum wage for certain industries; and in the following year, Winston Churchill carried through a government measure applicable to certain exceptional industries. The Trade Boards Act of 1909 authorised the Board of Trade to set up a Board of employers and workers in any trade where wages were unreasonably low in comparison with similar employments, in order to fix minimum time and piece rates which could be made compulsory by order of the Board of Trade. The post-war history of these Boards will be referred to in a later chapter.

17. Shop Assistants

The strain of standing for long hours behind the counters of shops was considered by a Select Committee in 1886, and a subsequent Act fixed a weekly limit of 74 hours for young persons. This Act, however, was rarely enforced, and an amending Act was passed in 1892. Women were not at first included in the provisions of the Shop Hours Act, but between 1892 and 1910 not only did they come within the scope, but seats in the shops had to be provided for them. Power was also granted to the local authority to compel early closing. Drastic legislation in 1911 led to a compulsory half-holiday for nearly all shop assistants.

18. Laundries and Children

The agitation against overwork on the grounds of national health, which was behind the anti-sweating and shop hours movements, was extended to laundry workers and school children at the beginning of the twentieth century. In 1907 the Laundries Act considerably restricted the

amount of overtime permitted, and brought laundries within the scope of the law for non-textile factories and workshops. In 1903 the Employment of Children Act protected school children and others outside the scope of the Factory and Workshops Act. Children were prohibited from employment likely to be injurious to their health or education, and local authorities were given power to make by-laws to regulate child labour in their own districts.

19. Mining Legislation

Mining legislation is in a class apart. The conditions of life in the early part of the century were shocking in the extreme. No section of the labouring classes was more degraded, for, as the mines were situated in the then remote parts of the country, away from the towns, the colliers naturally formed a distinct and separate class from the rest of the industrial community. The mine-owners, in many cases wealthy land-owners, occupied a privileged position and the men were shamefully exploited.

In Scotland the miners were not far removed from serfs, and throughout the North of England the yearly bond was the usual form of service. To-day, only the strongest children of mining parents will work underground. Then, women, children, and girls worked hard in loathsome conditions, sometimes chained together, in subterranean prisons for thirteen hours a day. Perhaps the work was not so unhealthy as in the cotton factories, but it was certainly even harder, at least physically. The dangerous nature of the work may be judged by the fact that in the early years of the nineteenth century, about 1,000 men were killed and between seven and eight thousand were injured annually, in colliery accidents.

20. The Mines Act, 1842, etc.

It was not until factory legislation had passed the experimental stage that a movement was made towards the

regulation of labour conditions in coal mines. In 1842 the first Act was passed. Women and girls were not allowed to work underground, and an age limit of ten years was instituted for boys. In 1850, official inspection of the ventilation and lighting arrangements was initiated, and questions of health were dealt with in 1855. These Acts were amended in 1860, the legal safeguards being made more effective. The first complete Act was passed in 1872 the minimum age was fixed, and ten hours was made the maximum working day. Every mine was to possess a certified manager who had passed an examination under Government auspices, in the theory of mining, especially in relation to health and safety. Thus, both the greed of the employers and the carelessness of the miners were placed under control.

The Coal Mines Regulation Bill was passed in 1887, and was followed by other laws ensuring safety in 1903 and 1906.

In the last years of the nineteenth century a definite movement arose in demand of the eight hours' day. This was legalised in the Coal Mines Act of 1908, which is of the highest importance in that for the first time the law controlled directly the hours of labour of adult men. Judged by the old-time standards, it was a revolutionary interference with the conditions of labour. Since then, the legal Eight Hours' Day has received the sanction of the Washington International Labour Conference of the League of Nations, but it has not been widely extended. After the War the miners enjoyed a seven hours' day, which was lost in 1926.

21. The Minimum Wage

The miners are also in a special position as regards the minimum wage, which is to-day a burning question. In 1912 the Miners Federation declared a national strike for this principle. A settlement by negotiation having proved

impossible, by the Coal Mines Act of 1912 Boards of Arbitration (District Joint Boards) were instituted, representing coal-owners and miners, to arrange for a minimum wage, which the Minimum Wage Act (1913) enforced.

The Boards were also empowered to make special arrangements for aged and infirm workers, and to fix conditions, the non-observance of which might deprive the miner of all claims to the minimum wage.

22. The Results of Factory Legislation

The results of factory legislation have been very satisfactory. To-day the working population is physically, mentally, and morally far in advance of that of a century ago, and some part of the change must be put down to legislative action, though increased responsibility following on the various Reform Acts has had much effect. A gradual improvement has taken place in the conditions of work, and this has had enormous effect on the lives of the people; in fact, the main basis of legislation is that a workman has a right to his leisure time, while the good use of this reacts on industry and on the coming generation. Some say, however, that the shortening of hours in every successive case has meant a speeding up of machines, and hence an increased strain on the worker.

Legislation has not ceased, and it is probable that conditions in small areas are as bad as they have ever been. Sweated industries, a relic, in a bad form, of the domestic system, in which sale is managed by a middleman, are too common. The problem has not been solved, though the Trade Boards Act of 1909, by which District Boards may fix a minimum wage in certain industries, has proved very useful. This has been one of the pressing questions of the new century.

The Factory Acts represent a line of thought continuing from Elizabethan times. It is true that the care of the worker has passed from the conservative to the progressive

stage; it is also true that to-day all parties favour some action. .During the last fifty years a reaction has set in against the *laissez-faire* position, and it is still continuing, though many thinkers hold that the individualistic principles are now underrated. The Factory Acts are largely responsible. Men saw that adult labour was affected, however indirectly, and still the catastrophe which the economists had promised did not appear. This breach of the old system at its most vulnerable point led to a general attack on *laissez-faire* principles.

23. Influence of Adam Smith. The Economists

As Adam Smith dealt a heavy blow at restriction just before the Industrial Revolution (so that his influence persisted after the evils he opposed had largely disappeared), so the bitter attacks of Carlyle and Dickens on the cold, selfish individualism of their day has led to an opinion in favour of government action to-day when self-help is almost a lost virtue. The beneficial effects of the new restrictions only had a great effect on general economic opinion towards the end of the nineteenth century. Then the old Elizabethan principles of the use of paternal legislation, though only persisting in a narrow range of subjects in the early nineteenth century, blossomed out into a whole system, until the new century has seen again the phenomenon of the community appealing to the State, not only for the redress of evils, but for action which shall conduce to the well-being of the nation. The miners have been able to appeal to public sympathy on account of the arduous nature of their work, but the two principles of the Minimum Wage and the Eight Hours' Day which they have forced from the legislature will probably be applied to other classes when public opinion has sufficiently advanced along the path on which it is now moving.

The economists cannot be blamed for their bitter and uncompromising attack on factory legislation. They

believed that reduction in the hours of labour would lessen profits, would decrease employment, and thus hurt the masses, and they believed, truly, that a surrender on this question would be a sacrifice of principle. They made a mistake, but they were not enemies of the working classes.

CHAPTER XIII

INDIVIDUALISM: FREE TRADE: TAXATION

1. The New Spirit of Freedom

Individualism as a motive-force to the Industrial Revolution has already been noticed.[1] Not the least important of the consequences of this system was the gradual development of the Free Trade doctrine during the first half of the nineteenth century. The triumph of this principle and the subsequent reaction against it towards the end of the century will be examined in the following pages.

At all periods the ruling power, if efficient, has exercised some control over the actions of the subjects. At first direct economic influence was mainly repressive and harmful, but we have considered an Elizabethan system which tried to guide industry.[2] The personal popularity of the Tudors, the prevailing trend of thought, together with the inherent virtues of the system, led to an acceptance of governmental industrial control. Again, the sovereign had all to gain from the enterprise of English merchants and craftsmen, and the abundant temporary legislation aimed at supplying needs rather than providing permanent means of control. Thus the way was left open to progress.

The success of governmental guidance, partly a result of efficient administration, caused a belief in its efficacy as a general rule, apart from satisfaction with present conditions. The early Stuarts wished to govern by arbitrary methods, while their advisers were not great men. After their pretensions were overthrown, a questioning spirit made itself felt in all directions.

[1] Chapter I. [2] Part I., Chapter IV.

After the restoration a group of Tory writers, headed by North and Davenant, showed the benefits of unrestricted commerce. They saw that too much attention had been paid in the past to production; merchants benefited because of the higher prices they could exact from the consumer. However well-balanced the Elizabethan system was in intention, the slightest trace of corruption made it possible for rich employers to exert Parliamentary influence in their own favour.

2. Opposition to Patents and Monopolies

On the concrete industrial side the new spirit probably originated in a dislike of patents and monopolies. These had been the weakest part of the Elizabethan system, and under the early Stuarts they became intolerable. The consumers were affected, but also the most enterprising part of the population, the new merchants, were forbidden to enter the most lucrative trades. There was little difficulty in the case of a new industry; the patent was a fair reward for service rendered to the country. Rival merchants and manufacturers, however, did not see why the advantage should be permanent.

Practical men and thinkers began to realise that it would be good in every way if the barriers could be broken down. There was much ability going to waste, while industries were languishing for want of efficient management. If the old employers could be deprived of their advantage they would be obliged to use improved methods, with consequent benefit to the country because of increased trade, or else give place to others.

Two conceptions began to emerge: first the annoyance felt by intending traders that monopoly was unfair; second, it was seen that this unfairness resulted in an economic loss to the country. Business men concentrated their attention on the first grievance, theoretical writers on the second; as a result both principles made headway,

though their connection was not always evident, and they were combined in one great intellectual theory.

Theory led to action. In the country impatient traders scorned the regulations and carried on an illegal, though lucrative, business. As always where a monopoly which presses on the public is attacked, the onslaught on old privileges could not be effectually crushed. Industrial smuggling became a nuisance to the monopolists, and could not be ignored. On the other hand, it was supported by sympathisers in Parliament, who could point to the changing conditions as evidence of real unfairness. Even when the worst patents and monopolies had disappeared, Davenant had a great restrictive system to face. Still, he had no clear conception of a general principle; the traders before the Civil War fought specific abuses which affected their own interests; the later Tories attacked specific legislative restrictions.

3. The Economists

The theoretical background of the opposition rested on a view of the nature of society, and of the functions of the civil government, which emerged from the religious conflict between the Puritans and the Anglican Church.[1] The void created by the breakdown of the traditional authority of the Church of Rome in matters of religion was filled by the independent individual; the contractual nature of the association between the members of the independent churches afforded a theoretical explanation of the necessary relations between subject and State. In the hands of Locke, and the eighteenth century philosophers, the puritan theory was reinforced by the doctrine of the law of nature and the natural rights deduced from it, and the new philosophical doctrine, at first primarily political, was transferred by the Physiocrats to the sphere of economics.

[1] See also Part I., Chapter V.

The philosophical position of the Physiocrats has already been noticed. Its central point was that all social phenomena are ruled by natural laws independent of human volition; that there is a pre-established harmony between enlightened self-interest and the public good; and that all men are by nature rational beings.

Like all the natural right theorists the Physiocrats held a mechanical view of the nature of society coupled with a belief in a pre-social independent natural man as the social unit. In their hands, too, natural law stood not far removed from Divine Law, and the existing world, when allowed to function naturally, appeared as the best of all possible worlds. These ideas, as was shown in Chapter I., had momentous consequences on the course of the Industrial Revolution.

The physiocratic theory was poles apart from mercantilism. The central features of that theory reposed on something akin to an organic view of the State, for throughout the Middle Ages the individual was unknown except as a member of some group. But by the eighteenth century, mercantilism in practice fell far short of its aims in theory; abuses clogged both the political and economic systems; not only that, but the ideal of a stable, well-ordered and regulated society, was out of harmony with the spirit of intellectual restlessness generated by the remarkable contemporary development of natural science. The world was ripe for a forward advance; hence the possibilities to individual initiative and freedom contained in the theory of the Physiocrats attracted the favourable attention of the leaders of economic thought. So far as England is concerned the new ideas received general diffusion through the medium of the writings of Adam Smith.

Adam Smith surveyed the whole field, and his *Wealth of Nations* provides useful reading to-day. His practical merit is that he grasped the essential weaknesses of the

restrictive system, and applied all his powers, theoretical and practical, using numberless examples and diverse methods, to drive home to his contemporaries the means of improvement. The practical man found a storehouse of well-arranged facts, with comments showing a knowledge of the world; the student found a remarkable power of reasoning, the conclusions being tested by history and contemporary events. The balance of the book is such that all the great economists have appealed to him as their master.

Yet the practical result of the book was not immediate. Its first effect was on opinion. The striving trader saw a confirmation of his views of free competition; the practical man was pleased to find that the general application of the principle of self-interest was a national benefit. But, also, the clearness and persuasiveness of the style and the arguments won over converts who increased in numbers long after the author's death.

The theoretical position of the *Wealth of Nations* marks a certain advance. Smith held, like his French predecessors, not only that competition was more desirable than monopoly; not only that the abolition of the latter meant an economic gain, but that the selfishness so much hated by the mediaeval gilds was a positive national benefit. He held that if every man is free to follow his self-interest, every man will be in his right place. Doubtless his reason for such a belief was not so convincing as some of those put forward later, and perhaps he generalised too much from the actual abuses existing at the time; but intellectually he was far ahead of most of his contemporaries.

4. The Individualism of Adam Smith

These points of view were different sides of one great principle. Smith accepted the philosophy of the Physiocrats, and indentifying the private with the public interest, he proclaimed a combination of self-interest and com-

petition to be good for the individual, and good for the country as a whole. Incidentally it should be noticed that the fatal flaw in this doctrine was that it viewed human nature as a very simple entity; in reality, it is actually very complex, and it is contrary to experience to assert that it is motived universally by any single principle such as self-interest. Another wrong assumption, not less significant, was that man is primarily a rational creature. If he were, and acted always according to the dictates of right reason, doubtless the discrepancy between private interest and public welfare would vanish. Unfortunately, man, apart from the closet philosophers, is a bundle of emotions and impulses; reason plays but little part in the ordinary transactions of his everyday life and his self-interest lacks those qualities of enlightenment which Smith, Bentham, and Ricardo took for granted.

Smith upheld the Navigation Laws on non-economic grounds. He attacked almost every other restriction on trade, whether the object was to favour individuals or a company, or to further the interests of a nation. In the name of individual initiative and liberty he attacked mercantilism both as a policy and a doctrine. The abuses of the Elizabethan system, which now fettered commerce and industry, provided individualism with an opportunity which rarely occurs. The movement was taken up by later economists; Malthus had a following, and Ricardo was supreme. These developed Smith's system, so that political economy progressed before the Individualistic system had been accepted by legislators.

There can be no doubt as to the need of Smith's work at that particular time. Individualism is not an easy doctrine to establish as a general principle, but it forms an efficient weapon against outworn restrictive systems. Probably he wrote more strongly than he felt, because he recognised that a stable system needed drastic reforms to overturn it.

One thing he could not prophesy, *i.e.* the Industrial Revolution. He wrote in a progressive age for intelligent people; he saw that English industry moved along fairly safe lines, and that a change of system would bring out forces which would prevent decay. What his book would have been like had he foreseen the quick development after 1760 we cannot tell; we may be sure that he would not have been so certain of the universal efficacy of Individualism in a country where the rich and powerful were making large fortunes, while the masses were miserable.

Though the *Wealth of Nations* was published in 1776, it had been written some years before; in any case the great changes occurring in the reign of George III. did not take effect at once.[1]

5. Pitt

The early Free Traders had tried to give effect to their theories, and they achieved some small legislative successes. The country, however, was not ripe for their projects, and the restrictive policy conquered. In 1713 an attempt at a commercial agreement was made with France at the Peace of Utrecht, but Parliament would not ratify the commercial clauses.

The *Wealth of Nations* had as little immediate effect as early efforts, but it made freedom of trade a practicable policy that could never more be despised. Pitt was carried away by the new doctrines, and wished to put them into effect, but he was too far in advance of Parliament. The American War had convinced him that our policy was wrong. Unfortunately his aims were regarded as unpatriotic by his opponents, and Fox carried the day.

[1] The opinions of the economic and social philosophers have been cited in connection with several specific topics as well as in the Introductory survey of the Industrial Revolution This is necessary, even at the risk of some danger of repetition, for no aspect of the Economic and Social History of the early nineteenth century is outside the circle of influence of these ideas.

Pitt aimed at improving the condition of the whole empire, and he wished to place the colonies in the same position as England as regards commerce. However, even an attempt to treat Ireland reasonably, failed.

In 1786 Pitt carried through an agreement with France, practically establishing Free Trade, and the next year he simplified taxation by consolidating the customs duties. This agreement was broken by the revolution. After the Peace of Amiens (1802) Pitt wished the removal of restrictions on shipping, but the owners were too strong. England's policy forced the Americans to follow a similar course. The French Revolution, by its excesses and its effect on English opinion, had convinced Pitt of the necessity of repression, and during the war his constructive schemes almost ceased.

He was also defeated by the manufacturers. These, having exclusive privileges, had much to lose from Free Trade, and they used their Parliamentary power unscrupulously. His theoretical arguments had to meet a heavy mass of common-sense reasoning and selfishness.

6. Reaction during the Great War with France

Pitt had no immediate successor of the same calibre and the continuance of the great war made Free Trade impossible. The nation, in the middle of a mighty struggle, had no time for theoretical arguments. Taxes were levied as convenience allowed, and no general principle was observed, while tariff policy was mainly governed by political considerations. Both England and France tried to stop free communication. A sound system of trade was impossible in the presence of excessive smuggling.

All men recognised the evils of the war when peace was declared; even the landowners realised that their gains had been exceptional, but their remedy caused distress among the masses. The old system had been successful enough in aim; taxation had been regulated with a view of crushing

competitors, but the defeat of France meant untold misery in England. The remains of the Elizabethan system were mere survivals and needlessly restrained trade. The opportunists war taxation was now seen to be clumsy and costly, and yet it was easier to originate than to destroy. One man saw the way to progress.

7. William Huskisson

William Huskisson (1770-1830) was born in Warwickshire. Unlike Pitt, he accepted the Elizabethan theories, but he saw that the war taxes must be revised and the remains of old legislation overhauled to make way for a new restrictive system which would be in touch with the needs of the people. He had himself been successful in business and was a practical man with a firm grasp of facts. He knew what the manufacturers wanted, so that much of his legislation was acceptable to them.

The landowners had become relatively less important; provided legislation did not directly affect them adversely, they were often willing to accommodate themselves to the changed temper of the nation. Their jealousy of the manufacturers became evident when important principles were at stake, or when they had an opportunity of despoiling their rivals, *e.g.* by the factory laws. Thus Huskisson encountered less opposition than might have been expected.

England had won in the war because her commerce provided the necessary wealth. Huskisson's policy was to relieve the disabilities under which it rested. Thomas Tooke in 1820 headed the Merchants' Petition. In this it was shown that England had a monopoly of the new machinery. Protection, with its effect on prices, was unnecessary.

Huskisson was level-headed and was not carried away by extreme demands; he knew what was practicable. He countenanced no changes which would have lessened the control of Government over industry, though he did not hesitate to attack existing interests where necessary.

As President of the Board of Trade he advocated the lowering of shipping duties. Where possible these were diminished, on condition that the country affected reciprocated. Any country retaining its high duties was penalised; preference was advocated as a means of forcing other nations to come into line. He wished to increase the trade with America, and for a few years in the second decade of the century all the important countries had fallen in with his schemes. Colonial trade was thrown open to these, and only the coasting traffic (which included trade between England and the colonies) was prohibited.

In connection with Huskisson's revision of the Navigation Laws and offers of reciprocal treaties with European nations, his ideas on Imperial preference should also be noticed. Huskisson is entitled to a place among the Liberal Imperialists for he dissented from the prevailing opinion of his time that the colonies were a burden to the mother country. He extended the system of preference in favour of England by the Colonies, and by the Mother Country in favour of the Colonies, by means of differential duties, " Differentials," as they were called. Preferences were given to the Colonies with respect to the corn duties of 1815 and 1825, and under the Sliding Scale Act of 1825 the colonial corn-growers were given a very definite advantage as against their foreign competitors. India also received preferences in silks, and only a nominal duty was imposed on Australian wool.

8. Simplification of Tariffs

Adam Smith in his famous canons of taxation had included convenience and inexpensiveness. Both these principles had been disregarded. Many taxes choked industries, others were irritating out of all proportion to the gain to the Treasury. Huskisson systematically abolished or reduced unnecessary duties. The plainest case was that of raw materials. When these fell in price

by remission of taxation, the working expenses of the manufacturer were reduced.

In 1824 and 1825 great simplifications were adopted. The number of taxable articles was greatly reduced; this diminished the cost of collection, as it was far easier to collect a tax on a single article than to collect a number of small taxes. Many reductions of unimportant taxes on manufactures were carried out.

The most important reform was the reduction of the taxes on staple manufactures. Silk was first treated, and the restrictions on the Spitalfields weavers were reduced. Other industries, *e.g.* wool and iron, were similarly affected. Huskisson's Presidency ended in 1827.

The effect of these measures on the country was immediate. Trade was so stimulated that speculation followed and a panic ensued. The permanent effect was very good, and the methods employed were copied later.

A crisis occurred in 1837, with consequent loss to the revenue. Deficits occurred till 1842, when Peel introduced his great Budget.

9. Peel

Sir Robert Peel (1788-1850), one of the greatest of English financial statesmen, was born near Bury in Lancashire. In early life he was a Tory of the old school. About 1820 his opinions began to change, and he saw the necessity of legislating for the sake of the masses as a whole. He recognised that if the country was to be improved the working classes had first to be considered, at a time when they were kept in misery by the laws passed both by manufacturers and landowners.

He always remained a Tory, though his point of view altered greatly, and he was opposed to ill-considered changes. His party was, however, out of sympathy with him in matters of opinion. As he grew older this opposition between him and his party grew more and more marked.

Peel's personal character was unexceptional. His grip of facts, his common sense and dislike of Radicalism, his absolute fearlessness and sincerity led him to be trusted by all parties, even when his measures displeased every one. As practical as Huskisson, he was something of an idealist; in addition he made his stand on sound economic principles. Thus his reforms were more sweeping than those of his predecessor, though at first they continued the same methods.

The nation was gradually leaving the evil days behind; it was seen that England's prosperity increased with improved trade. Further, the landowners were now overshadowed in numbers and wealth by the rich manufacturers. The old Tory party, consisting of landowners and firmly believing in absolute Protection in corn, had become relatively less important. The ideas of Adam Smith had so permeated the middle classes that manufacturers relied more on increased commerce than on Protection. Before the Industrial Revolution craftsmen were afraid of foreign competition; now the action of the Law of Increasing Return made the opening up of foreign markets essential.

Peel's ideas were little in advance of those of Pitt, and he was a more cautious statesman. The difference was that he was more in sympathy with the nation as a whole than his predecessors. Further, in Pitt's time the advanced manufacturers had wished for Free Trade in every commodity except their own; now they saw the benefits of universal freedom.

The success of Peel's aims was made possible by the co-operation of manufacturers, and by his influence over his Tory followers; yet he considered neither one party nor the other, but the whole country. The aim was not only to improve trade and find new markets, not only to favour agriculture, but to benefit the consumer, and hence the working classes, by lower prices and more equitable taxation. He thought more deeply than his fellow

legislators, and saw further; he considered the ultimate effect of his measures. He made mistakes; his Bank Act did not fulfil his expectations, but his positive work was of great importance.

The annual deficit in the five years before 1842 averaged about 1½ millions. Foreign trade diminished, while unemployment was rife. The obvious remedy was to aid commerce; Peel had not lost faith in the Corn Laws, and still held with his party on this point.

A bold stroke was necessary. Huskisson's experience made Peel avoid increased taxation. He supposed that if the tariffs were further reduced and simplified, a great saving would be effected in the cost of collection. His advance on Huskisson lay in the fact that he saw that if those tariffs injurious to commerce and industry were removed, the increase of production and trade might be such that the remaining duties would bring in so much revenue as more than to counterbalance the loss incurred.

Though the manufacturers wanted Free Trade because it aided commerce, their conventional common sense was against such a peculiar method of increasing revenue. Peel himself, far-sighted as usual, saw that the increased income would only be obtained after some time. Meanwhile it was an absolute necessity in the eyes of a sound financier like Peel that the deficits should cease.

His principle was, then, to improve finance by Huskisson's methods, and to compensate for the temporary loss by imposing a direct tax, *i.e.* the income tax. Like most direct taxation it was extremely unpopular, and a weaker Minister would have failed in his object. Peel only succeeded by holding out the hope of its extinction when finance became healthy.

The policy was hopeful because, first, direct protection of industry could no longer be of use, as England had a practical monopoly in most branches. Secondly, the Increasing Return principle made a rapid increase of

production possible, while the important developments of transit had opened up the whole world to the manufacturing districts. In the Middle Ages, when production was mainly carried on in limited quantities for a fixed and known market, quick expansion would have been difficult; it would have been limited by the personal capacity of the craftsmen, not, as now, by the power of man over natural agents.

10. Peel's Great Budgets

The income tax was in 1842 originally fixed for five years. Nearly 800 duties were abolished or reduced. Most of the export duties disappeared, and the import duties generally became reasonable. Raw materials, and in a less degree manufactures, were relieved. The process was continued in the next two years (1843 and 1844); all restrictions on the export of machinery were abolished, a very important change of principle, as it meant that other countries could more easily compete with us.

The second important budget was that of 1845; there had been three good harvests, and trade had improved. The revenue had not suffered, and Peel's earlier policy was fully vindicated. He now took a bold line: he renewed the income tax, and continued his earlier policy in even more drastic fashion. Nearly every commodity except corn was relieved; over 500 duties were repealed. From 1841 to 1846 more than six hundred taxes had been repealed and more than a thousand reduced. Every export duty except that on coal had disappeared, and most taxes on raw materials had gone.

Peel had not satisfied the *laissez-faire* party. His watchword had not been freedom for its own sake, regardless of consequences, but convenience. He had a conservative party to lead, and as usual he acted as a bulwark against too sudden change. The principle of preference was retained, diminished in importance. There was no continuous line of policy guided by a single great principle.

Peel's opinions changed as his work progressed and as he attended to the arguments of the Radicals. The Corn Laws were repealed in 1846, and the Navigation Laws finally disappeared under Lord John Russell in 1849.

Peel's working principles may be well summarised as follows:—In the first place, like Huskisson, he aimed at the abolition of prohibitions of every kind. Secondly, he desired to reduce all duties on raw materials to at least a nominal amount; and finally, he wished to lower duties on manufactures to an average of 20 per cent. Just as Huskisson prepared the ground for Peel, so Peel paved the way for the completion of Free Trade by Gladstone.

11. The Corn Laws

Though the landed interest could not stem the tide, it showed powers of resistance when the question of corn was at issue. It had obtained the stringent Corn Law in 1815. This could only be defended, in theory, on the ground that ruin was facing them; but the landowners learned to look on Protection as a right, and it was this question which largely held the old Tories together as a party. They gradually dwindled in importance till their defeat in 1846.

The Corn Bounty Act of 1689 had attempted to steady prices, and was probably fairly successful. Governor Pownall's scheme in 1772, as partly carried out by Parliament in the next year, attempted by complicated regulations to keep the price of corn at about 48s. a quarter, relying partly on foreign corn, which was admitted when the price rose above that amount. The scheme was a failure. Bad seasons followed, subventions were necessary, and in 1791 a new law attempted to keep the price within limits. A bounty on export was given when the price was below 44s., a prohibition of import existed when it was below 50s., while there was a nominal import duty (6d.) when the price rose above 54s., which was meant to be the higher limit.

Farming during the war might be very profitable, but it was too speculative, good profits being dependent on the exclusion of corn in war times. The law of 1815 was an unblushing class measure, however necessary. Though no more restrictive than the general mercantile system, the latter aimed at the general welfare, at least as regards the intentions of the legislators. The assumed aim was to make England independent of foreign corn, and it was held that to stimulate agriculture sufficiently a prohibition of import when the price was below 80s. a quarter was necessitated.

The time was one of bad trade; untold misery resulted. The law did not even achieve its object. Farmers had to pay higher rents; if the land rose in value owing to their exertions, they were penalised at the end of their lease. The landlords reaped a rich reward, but they could only do this because production had not been sufficiently stimulated. In the seventeenth century Gregory King had formulated the law that when the supply of corn diminishes the price rises more than proportionally. A large production was a mistake from the agriculturists' point of view. The supply could not be suddenly increased in time of war.

The famine year of 1823 necessitated some change, but the system was not permanently affected, even by the sliding scale law of 1828. According to this, import was not absolutely prohibited under the maximum price, but the duty gradually diminished as the price rose. In practice, in bad years foreign merchants held back their corn supplies until the lowest duty point was reached. Practically there was still prohibition. In 1842, before his conversion, Peel carried through a rather more liberal measure.

12. Jeremy Bentham

The old system of legislation with a view to increased power had obviously failed. The rival method was to

promote plenty. This was the aim of the utilitarian philosophers, of whom the first was Bentham. Jeremy Bentham (1748-1832) expounded his principles, like Adam Smith, under the old system; his importance lies not so much in his own work as in his influence as a teacher. Thus his opinions, reasonable enough in a restrictive age, were advocated by his pupils in an age when free competition was a reality.

These philosophers, believing in the principle of the greatest happiness of the greatest number, had a great influence on economists, *e.g.* Malthus and Ricardo. The classical economists, represented in an extreme form by MacCullock, applied this criterion to all legislation. They were men of advanced views, sceptical in their opinions of old dogmas and systems. Logically, the result was Radicalism. Yet they were revolutionaries only in respect to the restrictive legislation of the time. Because Bentham saw that progress was hindered by outworn systems, his followers wished to apply the same methods as would have been effective in a conservative age.

The extremists, at least, were men of one idea, *i.e.* individualism. They saw that the mass of the population would become richer and, presumably, happier were restraints on competition removed. The basis of their doctrine led them towards a passionate devotion (at least in theory) to the welfare of the masses. Yet laws like the Factory Acts, which controlled adult labour for the purpose of increasing the general happiness, were opposed because they violated their principles. They were sincere, but narrow, intellectually capable, humanly somewhat deficient.

Ricardo and Malthus undoubtedly wished the workers well, but their conclusions were unpalatable to the latter. There was no living sympathy between their followers and the masses. Hence the doctrine, as a whole, was not popular with that large class which possessed no representation. It fed certain popular movements, *e.g.* Chartism, but the economists were out of touch with these.

13. Progress of Utilitarianism

The Corn Laws were oppressive; utilitarianism stood for plenty. The principle was gaining ground, and all parts of the old system were equally assailed by economists. The hated laws formed one face of the structure attacked by the intellectuals. Here, if nowhere else, the manufacturer (who expected cheap corn to be followed by cheap labour), the student and the workman had all one common object. The masses could not vote (only the middle classes were enfranchised even in 1832); they could agitate and could alarm the government. Rotten boroughs before 1832 threw power into a few hands, but through very fear the government paid some attention, generally repressive, to popular movements.

The cynical statement must hold that the workers' chief hope lay in the jealousy by the manufacturers of the landowners, who still retained an unquestioned social supremacy, for which wealth and power were often considered poor substitutes. The aristocrats returned the feeling, and thus the Factory Laws and the Repeal are largely explained. Philosophic Radicalism supplied an excuse to the masters, to be used as was convenient. The masses frankly aimed at improving their own condition. Whig and Tory represented real principles. The cleavage was political. It was enough that the Corn Laws were the foundation of Tory prosperity.

The practical reformers of the first half of the nineteenth century (always excepting Lord Shaftesbury and his followers) were thoroughly imbued with the spirit of Bentham and the classical economists. They tried to carry into practical effect the reforms advised by the latter. The centre of activity was in the manufacturing districts, and the Reformers were said to belong to the Manchester school. They concentrated their activity on the worst abuse, the Corn Laws.

14. Charles Pelham Villiers

Strangely enough, the first persistent attack on the Corn Laws was made by an aristocrat, who might have been expected to appreciate the force of the argument that the landowners should be protected because they were a natural governing class. Charles Pelham Villiers (1802-1898), elected for Wolverhampton in 1835, became the head of the insignificant Free Trade party. In 1838 he brought forward his first annual motion, attempting to convert the House of Commons to his point of view, which was at first not taken seriously. Villiers was patriotic and unselfish, but did not grip the people. His great merit was that he kept the subject continuously within the range of discussion.

The year 1838 was one of depressed trade, and the Anti-Corn Law Association, a local Lancashire body, was formed with the aim of improving conditions by increasing commercial liberty. Villiers was made the Parliamentary representative. Next year the Association became the famous Anti-Corn Law League, and at last the Protectionists woke up to their danger. A select committee was appointed by Parliament, but its findings were so favourable that they were published and circulated by the League.

Villiers worked loyally with his Lancashire supporters, but his importance diminished with the rise of Cobden.

15. Cobden and Bright

Richard Cobden (1804-65) was born at Midhurst, in Sussex. He was the great educative force of the movement. In 1835 he had published pamphlets on Free Trade and Government intervention, and soon joined the Philosophic Radicals. In 1838, when a manufacturer in Manchester, he joined the seven merchants who comprised the Association. In 1841 he made his maiden speech in Parliament as member for Stockport, and four years later

the oration which helped to convert Peel, who gave to Cobden the whole credit for the repeal, an opinion which the nation shared.

His work was not confined to Corn Law questions. In 1859 he went over as a private person to France and arranged a commercial treaty with Napoleon III. in the face of French opposition.

Cobden's success, more marked in the country than in Parliament, was due to his sincerity and to his grasp of the principles involved. He could make a long and complicated argument clear to a mixed audience, using the simplest words and ideas. His genius was suited to a large public meeting rather than to a deliberative assembly like the House of Commons. He was an unwearying worker, in and out of Parliament. Though his fame has not been less than his desert, he did sacrifice his material interests.

John Bright (1811-89) was Cobden's brilliant lieutenant. He was born at Rochdale, the son of a mill-owner. His Quaker education made him a master of pure and effective English. He met Cobden in 1837, and was a member of the League. In 1843 he became member for Durham, and entered Parliament with the reputation of an agitator. He worked so steadily with Cobden that the two were only twice on opposite sides in divisions during their Parliamentary career.

Bright was not appreciated by the Commons, even when they had been educated by Cobden. He was above all an orator, capable of clear thinking, but usually appealing to the passions of his hearers. He was one of the most effective speakers of the last century, and his object was one capable of emotional treatment. Bright was working for a popular cause, and as a result his popularity was great. To the end he never quite overcame the prejudices of the middle classes. He and Cobden were complementary in character.

The two friends had the limitations of the Manchester school which they represented. Both were against State control of industry under practically all conditions, and neither favoured the Factory Acts. Probably their natural antipathy, as manufacturers, to the landowners affected their outlook.

These three reformers, and their followers, could at most do persuasive work. The landowners, at bay, were making the most of their influence. However, events were trending towards free corn, though success seemed distant. Poor Law reform took away an excuse for protection, because rates decreased. Farming was seen to be more risky under the Corn Laws. The fear of sudden ruin held in 1815 had vanished, and farmers were gradually adjusting themselves to lower prices.

The country as a whole saw that the laws had failed in their aims. The masses recognised that the Tories were no longer their friends. Again, the simplification of the tariff which Huskisson and Peel carried out, though plainly inevitable, yet opened the way to reductions in all directions. Finally corn was left as the only important commodity still highly protected. Its position was anomalous and absurd.

16. Peel's Task. The Potato Blight. The Edinburgh Letter. Free Trade in Corn

These facts became clear to Peel, who bears the real practical responsibility and credit of repeal. The task of the *laissez-faire* theorists and extremists was relatively easy: they had to suggest and criticise. Peel overbore all opposition and made repeal an accomplished fact.

His task was all the harder because Cobden and Bright had opposed him in his moderate measures. They wanted all or none. Peel was as far-seeing as they, but he appreciated the real difficulties much better. Further, he was connected both with land and with industry, and was

thus more interested. Repeal was the life-work of the reformers; Peel had to govern the country in addition.

In 1844 the position was unpromising. Trade was fairly good, and Peel's Budget had improved matters. The change was startling in its suddenness. A wet winter showed the certainty of a bad harvest, which would apply especially to corn and potatoes.

Under the Corn Laws the price of wheat was of great importance to an English family; in Ireland the people were quite dependent on potatoes. That country is not suited to corn-growing; in addition, the poverty of the people had necessitated the use of the cheapest food; there was nothing to fall back on if supplies failed. The peasants were "rack-rented," *i.e.* their rent was so high that bare sustenance only was possible.

In 1845 the destructive potato blight fell on Ireland The effects were not immediate, as a store of food already existed. Peel saw that a famine would occur in 1846, before the next harvest. Cobden's great 1845 speech had influenced him; now events showed that something must be done. Peel, the man of action, did not hesitate. The rain of 1845 "rained away the Corn Laws."

As a temporary expedient, Peel bought a large amount of maize from America, to be used later. He wished to open the ports to free food until the crisis passed, but all parties recognised that if this was done, the principle in question would have been conceded and the laws would never be re-established. The reports of the truly terrible condition of Ireland were dismissed as exaggerations by the Protectionists.

Peel's proposal in November was thus rejected by the Cabinet. His Whig rival, Lord John Russell, in his Edinburgh Letter, announced his conversion to Free Trade (in corn) in opposition to his former policy of a fixed duty. Peel, not to be outdone, wished to bring in a Repeal Bill, but the opposition of Lord Stanley caused

him to resign office. Lord John Russell could not form a Ministry for political reasons. Peel had to be recalled.

Feeling was intense in the country, especially in the large towns, for even in England the poor were affected. Pressure, independent of party, was brought to bear on Government. Peel also felt very strong after the failures of his opponents. His conversion was complete. The end came suddenly and amazed everyone. In January 1846 Peel brought forward his resolutions for the immediate and permanent Repeal of the Corn Laws.

Famine had inspired the decision, and necessitated its acceptance by the Whigs, who supported Peel. The critical moment now came. Disraeli, seizing his opportunity, made himself the spokesman of the Protectionist party. He had no affinity with the old Tories and had been befriended by Peel, but now he made a bitter personal attack on the Premier, shared in spirit by the Protectionists.

The charge of betrayal was of no use; Peel was firm. He convinced both Houses, against great obstacles, that his action was necessary. Repeal was accomplished in June; a nominal duty was retained which disappeared later. The Protectionists revenged themselves by combining to defeat Peel on the Irish Coercion Bill, after which he never regained power.

This is one of the great epochs of English economic history. From this time wheat lost its prime importance in the wages bill of the masses. England prospered exceedingly after this time: trade improved greatly and wages rose; real wages rose still more, as food expenditure was lessened. The masses obtained a greater share of comforts, and socially they drew nearer to the middle classes.

17. The Effect of Free Trade

It would be a mistake to ascribe all this improvement to Free Trade. Something must be allowed for natural progress, which occurs even under Protection. Again, the

trade returns must be examined in the light of changes in the value of money. Prices were rising in the fifties; when corrected by index numbers, a smaller increase is shown.

Before continuing, we must complete the development of Peel's policy. Repeal was the last great victory of *laissez-faire*. The Free Traders won such sweeping victories precisely because abuses were present. When the old restrictions disappeared, it was found that many evils remained. The necessity of new regulation was apparent, but there was little new important legislation actually carried through. Thus this resting time, a period in which there was little to abolish and in which there was comparatively little innovating spirit, preceded the socialistic tendencies which set in after about 1870.

The reforming spirit had shown its power. Cobden's success had led to the growth of a new Radicalism. Thus every trace of the old hated system could be swept away. The aim of taxation became revenue alone. The power of the landlords was broken and Democracy became a force. Tariff change had to follow Free Trade lines.

18. Gladstone

William Ewart Gladstone (1809-98), born in Liverpool, was of Scotch descent. He carried out the reduction policy which marked the limited *laissez-faire* spirit after 1850. He was a Peelite, and like his leader he gradually changed from Tory to Free Trade principles. In 1843 he had carried through the Export of Machinery Bill, and as President of the Board of Trade had prepared Peel's tariffs. In 1845 he issued a pamphlet on Free Trade, and later he took Stanley's place in the Cabinet, retiring with Peel the next year.

Gladstone became Chancellor of the Exchequer, and in 1853 presented his first great Budget. His policy was a mere continuation of Peel's, but his speech was memorable

in showing his great financial skill, and in making a dull subject attractive by his persuasive powers. Free Trade was now largely assured by the personal popularity of the Chancellor.

The income tax was again retained, and again its disappearance in 1860 was promised. The Crimean War made this impossible. The legacy duty was extended to real property. The income tax was extended to Ireland, but the debt incurred during the famine was remitted. The soap duty disappeared, and that on tea was reduced. The tax on newspaper advertisements, a heavy handicap on a cheap press, was lowered, and afterwards abolished. More than a hundred articles were affected.

Early in 1854 Gladstone had to provide a war Budget, and the progress of Free Trade was delayed for a few years. He was strongly opposed to a war loan. The income tax was doubled; taxes on malt and spirits were raised.

His second great Budget was presented in 1860, after the commercial treaty with Napoleon III. which preceded an enormous increase in foreign trade. There was a deficit of five millions and yet Gladstone determined to continue his policy. Food taxes were reduced. In a separate Bill he tried to remove the paper duty, which was the only remaining obstacle to a free press

This attempt roused great opposition, and Gladstone carried his Bill through the Commons with difficulty. The tax was lucrative, and other taxpayers wished it to remain. The proprietors of the best newspapers feared, rightly, that their monopoly would be endangered if journals were cheapened. Gladstone, like Peel, was fighting the battle of the people against vested interests.

The House of Lords was emboldened and threw out the Paper Bill, passing the Budget. A fierce controversy followed, and Gladstone laid down the principle that the Lords had no right to interfere with money Bills. It was held that a refusal to agree to a repeal of a tax was

equivalent to the imposition of it by the Lords. For long this privilege had belonged to the Commons alone.

Gladstone, now an avowed Liberal serving under Lord Palmerston, made the question one of principle. In 1861 the Paper Bill was incorporated in the Budget. As the Lords could not amend this, they had to pass or reject it as a whole Though the Budget had passed with a very small majority, the Lords gave way. As the middle classes had feared, democratic opinion obtained a new means of expression, of which good use was made. In 1863, and again in 1874, Gladstone tried to abolish the income tax, but he found it impracticable. Direct taxation thus became an important and permanent means of obtaining revenue.

Though Gladstone introduced no new methods, and though his political eminence has been questioned, as a financial administrator he ranks high. He had a sense of economy and of honesty in finance; added to this was his mastery of figures, into which he could infuse life. After 1860 he had fulfilled the Free Trade aim of reducing indirectly taxed commodities to the minimum.

19. The Effect on Agriculture. Subsequent Events

Good as was the new system as a whole, the landowners were justified in their fears. However, for many years agriculture even improved. The fear of lowered corn prices stimulated farmers to use the best methods. Large landowners who were willing to supervise their land saw that the best results were obtained from big estates. Thus occurred the last stage in the process which converted the unit of cultivation in England from strips of common fields to a large farm.

The land was cultivated more intensively, and it was found that the old protective régime had inculcated a lethargic spirit. Farmers applied their best energies to the problem with good results. Unfortunately, as

agriculture is above all conservative, the farmers retained the old crops instead of applying capital to products which could easily meet foreign competition.

Events for a time favoured the farmers. The rise in prices (*i.e.* the depreciation of gold) meant that those who had mortgaged their land would find their debts had dwindled, as money was cheaper. If a farmer held a long lease the fixed money rent he had to pay was in reality less than before. Again, foreign competition was artificially checked by the Crimean War and the American Civil War of the early sixties.

Both these favourable circumstances were based on an insecure foundation. If the farmers had been able to adapt themselves to changed conditions easily, like the leaders of industry, they would have seized the opportunity to make the required changes while depression was still to come. The end of the wars again opened England to foreign corn; the fall of prices in the early seventies neutralised the former advantages. Then the farmers had to face competition under old conditions but without artificial help.

The Manchester School was too optimistic; it neglected evil results of this kind. It was again mistaken in supposing that Continental countries, which at first, like America before the Civil War, seemed to be tending towards Free Trade, would follow our example. A reaction occurred in the seventies, upheld by economists like List.

Yet Free Trade cannot be blamed for the agricultural depression existing in England since about 1874. Free import of corn was the partial cause of it, but that was because the former system was a hothouse growth. In every great reform vested interests are affected; the aim of Protection was to benefit agriculture; when Protection was removed agriculture had to suffer.

The blame must be divided between the old system and the agriculturists. If agriculture had been free since

1760, a system would have developed naturally which would have suited the needs of the developing population. Competition would have forced the farmers to lessen their corn production and to develop in other directions, or else would have made such changes in method and organisation that foreign competition would not have been feared. Protection stereotyped a worn-out system, utterly unsuited to the later nineteenth century.

Other causes have been at work besides the removal of Protection. Germany and other countries have also passed through an agricultural depression in the last forty years, but there the problem has been tackled in a different fashion. Foreign competition is feared in such countries also. The trouble was not merely one of size of holdings, as all farmers suffered, nor merely one of high rents, because some enterprising men succeeded in such circumstances. In Belgium and Holland the land is extremely valuable and not naturally productive: yet high farming is the rule, much labour being expended on a small area.

Denmark, almost a Free Trade country like Holland, is the best example of modern agricultural progress. A sandy, infertile soil has been well cultivated by a particularly intelligent farming population. Co-operation has been the rule, and the most scientific modern processes have been freely used. The capital city contains a quarter of the whole population, and yet there is a large surplus of dairy products sent to England and elsewhere.

It is true that lower rents in England would have meant a temporary stimulus, and that foreign competition was acute, but the failure is largely explained by the human factor. The best intelligence was not attracted to agriculture; this was also a serious social evil. There has been no serious attempt at co-operation. The credit banks of Germany and elsewhere have hardly been copied, and the independent farmer in difficulties has resorted to mortgages, an expensive and burdensome expedient.

The agricultural labourer was less affected than the landlord (who has lost some of his rents) and the lessee (who can hardly pay even the lessened rents). His wages did not fall much after free corn was admitted, while his purchasing power greatly improved. Yet industry, with its apparently higher wages, was much more attractive to him. Hence the drift to the towns was very marked in the last quarter of the century, and is still important.

This greatly increased the difficulties of the farmers, though it kept up the wages of the remaining labourers. The social effect is much more serious. A somewhat decadent town population has replaced the healthy agriculturists. Here again Free Trade is not altogether at fault. The same effect is seen in Germany; the evil is partly economic, and partly personal, depending on the tastes of the labourers themselves. During recent years a cry has grown up of back to the land. A healthy, prosperous, and intelligent peasant population is obviously possible from Continental examples, but no thoroughly satisfactory scheme has been introduced. It is possible that no State action, protective or otherwise, would be effectual without a change in spirit in the countryside.

20. The New Protection

The continued depression after 1875 raised doubts respecting the validity of the Free Trade doctrine. On the one hand there was the spectacle of agriculture subjected to ruinous American competition, while on the other was the example of the new intensified protection of industries on the part of the Continental nations and the United States. As early as 1887 the Minority Report of Salisbury's Commission on the Causes of the Depression recommended a change from free to fair trade. Down to the end of the nineteenth century, however, although there was a growing feeling in the Conservative Party in favour of

retaliatory measures against the tariffs imposed by certain countries, the " Giant " was not seriously challenged until Chamberlain took up the cudgels after the South African War.

Chamberlain centred his proposals around Imperial Preference, and in 1903 several circumstances combined to place them in a peculiarly favourable light. The at one time possibility of German and French intervention on behalf of the Boers during the South African War had exposed the danger of our international isolation; and had not the Colonies rallied to our support between 1899 and 1902 ? The time for a new and wider Imperialism seemed therefore ripe, and Chamberlain was a popular figure in the Colonies. During his tenure of office as Colonial Secretary after 1895 he had introduced administrative reforms calculated to win the admiration of the settlers overseas, and in 1897 he had induced the British Government to accept some Canadian preference.

Chamberlain's original proposals involved taxation of foodstuffs; a tax of two shillings per quarter on foreign wheat and flour, and a five per cent. duty on imported foreign dairy produce in favour of colonial supplies. The violent and bitter controversy aroused by these proposals, however, forced him to drop the Imperial issue and to turn to the wider question of protection of home industries, and retaliatory measures against the tariffs of other countries.

The more moderate of the Conservatives, led by Arthur Balfour, preferred a Reciprocity scheme. They supposed that if we widened the basis of taxation and raised existing duties, we could use them as a means of retaliating against foreign countries to force them to lower their tariffs.

In spite of Balfour's efforts at mediation, Chamberlain's dynamic personality split the Conservative Party, and he, along with the free traders, Lord George Hamilton, Ritchie, and Balfour of Burleigh left the Government to pursue its

middle policy. Chamberlain, unhampered by office, then commenced his great campaign in the industrial north. The new doctrines made headway in the farming districts, but at the General Election of 1906 the Conservatives were decisively beaten.

Undaunted by this reverse, the Tariff Reformers made good use of their time, but at the next election the northern towns were still unshaken.

The new policy was partly undertaken in order to increase revenue. A rapid increase of expenditure necessitated some change. The rival Liberal policy was to tax the rich man, especially if his wealth was unearned. In 1909 Mr. Lloyd George introduced his famous Budget, which was rejected by the House of Lords, but was passed after a General Election. Free Trade was adhered to; a super tax was placed on large fortunes; "unearned increment," or the rise in the value of land due to increase in population, was taxed, while the income tax on unearned incomes was increased. The 1914 Budget further raised the tax on large unearned incomes.

21. Free Trade *versus* Protection

It is not without interest to review in general terms the movement which has just been outlined in essential details. Free Trade and Protection are philosophical doctrines as well as practical policies. Philosophically, Free Trade has a natural and close affinity with individualism. Natural law in the eyes of the early individualists was not far removed from Divine Law; hence positive interference with the free play of natural forces appeared to be a violation of the scheme ordained by Providence. Protection, on the other hand, does pay some recognition to an organic view of the nature of society, even though it limits that view to the single nation. Imperial preference, for example, rests on the view that the peoples of the Empire are fundamentally one great family, not an aggregate of

independent individuals. Philosophically, protection goes deeper than a mere bread and butter argument; it aims at an harmoniously regulated development of the economic and social life of a nation in exactly the same way as an ideal system of education proposes to train the powers of the individual. From a purely theoretical standpoint the balance of advantage appears to be with regulation, given certain necessary conditions.

This qualification cannot be omitted because economic and social problems are never independent of time and place but are always relative to circumstances. Mercantilism degenerated into a system of narrow privileges and abuses mainly because political power was restricted to a narrow class, and because an efficient administrative machinery was lacking. Individualism, on the other hand, was pre-eminently suited to the age which gave it birth. In the hands of Bentham it uprooted political and legal abuses; in the hands of Smith and Ricardo it effected a similar revolution in economics. In other words it liberated mankind from the bondage of custom and made possible the extraordinary material progress made by England during the nineteenth century.

Individualism, both with respect to its characteristics in general, and freedom of trade in particular, accomplished a great work for England during the greater part of the nineteenth century. Its broader aspects allowed necessary scope for that individual initiative and enterprise which raised England to a position of industrial and commercial pre-eminence; free trade in food necessaries proved a gain to the working classes difficult to over-estimate. Unfortunately, individualism by neglecting the natural and intimate bond between the various classes that make up society achieved these advantages at the expense of an immense amount of suffering among certain sections of the working population.

The theory of individualism as a philosophical basis of

society began to lose ground after 1870. For one reason, it had accomplished its purpose; economic and social civilisation having been lifted out of a rut, its driving force was no longer necessary. The human mind, temporarily blinded for a century by man's material conquest of nature, began to turn from wealth as an end in itself, to wealth in relation to human welfare in a socio-moral sense. The inadequacy of the explanation of social life in terms of mechanical association began to receive recognition, and a more organic view of the relations between the social classes of society developed. Liberty received new meaning and content. The English conception, from Locke to Mill, of liberty as the antithesis of State action was gradually discarded as it was perceived that the sweated worker, or the illiterate casual labourer, had a liberty void of content unless State action created for him the conditions necessary to the development of his true personality and powers. This anti-individualistic theory placed State action in new perspective once it was comprehended that even freedom demands a regulation of social life. It is true that these ideas were primarily political, but the various phrases of human activity form a unity, hence the theory of unrestricted competition and free trade, in the sense of unregulated trade, was rendered philosophically untenable.

Turning now to Free Trade as a practical commercial policy, circumstances were specially favourable to it in the early nineteenth century. It was adopted at a time when England, alone of the nations of the world had become industrialised, and when she enjoyed a practical monopoly of the chief motive power, coal. The United States, apart from the eastern sea-board, was still inaccessible wilderness; Europe was too convulsed by racial struggles for political freedom to offer serious industrial and commercial competition. It is therefore difficult to estimate to what extent English supremacy was due to her

commercial policy, and of what she owed to circumstances purely accidental. It is a matter of experience that the vision of Adam Smith and Cobden of a world economic unit has not materialised. List stemmed the free trade tide in Germany with arguments that were primarily socio-cultural rather than purely economic. Fundamentally, by asserting that the aim of a nation should be the scientific development of its productive in preference to mere exchange powers, they struck at the individualistic thesis.

Towards the end of the nineteenth century new German and American competition forced home the fact that England had lost her earlier relative advantages; that new world conditions had arisen. It was the recognition of these facts that conferred new values on the colonies and occasioned Chamberlain's campaign for Imperial unity.

The war and post-war years have experienced both a new outburst of nationalism, and a second Industrial Revolution in the sense of an intensified application of science to the problems of labour-eliminating machinery, and industrial management. These factors have created world conditions differing widely from those of 1850. The increasing difficulties to freedom of international trade created by narrow nationalism, which in itself is a product of peculiar political and economic circumstances, and the unemployment caused by the intensified application of scientific principles to industry appear to necessitate a regulation of both social and economic life incompatible with the individualism of the nineteenth century.

Individualism and regulation, free trade and protection, cannot be valued in an absolute sense, *i.e.* independently of the general conditions of the time. Each doctrine has special advantages under particular circumstances only. The fundamental error of Adam Smith and Ricardo was in supposing that principles, which were to the undoubted advantage of England at the time of the Industrial

Revolution, would confer equal benefit everywhere, and under all circumstances.

Taxation, 1760-1914. General Principles

Problems of taxation have been referred to in several sections of this chapter, but only incidentally, and from the point of view of the development and subsequent decline of the Free Trade doctrine. It is necessary, therefore, to consider the history of taxation in the nineteenth century, the income tax especially, in a more general way.

22. Taxation in the Eighteenth Century

The accepted principle in the eighteenth century was that taxes should fall on expenditure only, and that they should press lightly at a number of points and heavily on none. Direct taxation found little favour anywhere. For one reason, the administrative machinery was inadequate to the enforcement of general taxes on income; fraud and evasion could not be prevented, except in the case of land, and the landed interest dominated Parliament. A second reason was that a compulsory return of income was believed to be a violation of the traditional liberty of Englishmen. Strangely enough, indirect taxation was defended on the grounds of justice; it was argued that expenditure was optional; that a man could evade a tax simply by refusing to indulge in a luxury. To the objection that this did not apply in the case of necessities the argument was that as the labourer was already working for subsistence wages, a tax on the necessities of his physical existence must be thrown back on the employers, or the consuming public, in the form of an increase of wages.

For this reason it widely argued that only luxuries should be taxed; in practice, however, luxuries proved difficult, if not impossible to define. At the same time,

on account of almost incessant foreign warfare, government expenditure was steadily increasing during the progress of the century, and the final result was that practically every article in general use was subject to taxation.

Against this there were several serious objections. In the first place the theory that the poorest class of labourers fell outside the incidence of taxation on necessities failed to square exactly with experience. Secondly, taxes wholly on expenditure press far too lightly on the rich, and much too heavily, proportionally, on those with moderate and small incomes. Even from the point of view of the National Exchequer taxes laid everywhere, without discrimination, had grave practical defects. In some cases a tax barely yielded a surplus over the expenses of collection; and, more serious still, the instances in which the returns could be made elastic, in accordance with the needs of the moment, were very few in number.

23. Pitt

When Pitt went to the Exchequer in 1783, the finances of the country were in a deplorable state, Government stock stood at 56, and the National Debt seemed an insupportable burden. His first reforms were to simplify the customs rates, and certain private luxury taxes on the rich, with the object of increasing their yield, and to establish the consolidated fund. (Before his time, different items of expenditure were charged against different taxes.)

By these reforms Pitt hoped to raise a surplus to be applied to the reduction of the National Debt. Influenced by the theory of Dr. Price he established a Sinking Fund. To prevent the funds from being diverted to other purposes as happened in the case of Walpole's scheme, Pitt proposed to hand over to Commissioners £1,000,000 per annum with which to purchase Government stock, and the interest on this stock was to be applied to further purchases. Price

contended that in this way the Debt would ultimately be extinguished, and so it would, assuming that the Government rigidly limited future expenditure.

By 1792 the financial position had so far improved that Pitt was enabled to reduce taxation on wagons, small houses, and candles, but unfortunately at that moment the French Revolutionary Wars broke out.

24. Pitt's War Finance

Pitt's war-time measures are open to severe adverse criticism. Instead of at once reducing expenditure to the minimum by means of drastic taxation, he attempted to raise the bulk of the necessary supplies by means of loans. So far as he did resort to taxation he followed the eighteenth century tradition of taxing every conceivable article of consumption, but the inelasticity of the yield forced him to rely mainly on loans. The form of these loans was far from the public interest in the long run. Instead of being issued at 5 per cent. at par, they were offered to the public at 3 per cent. at 72. The future national obligation was greater, therefore, than the amount actually received on loan. In justice to Pitt, however, it should be remembered that the lower interest at a discount was much more attractive to the subscribing public, as it offered a partial guarantee against conversion.

At the same time, and while public expenditure was increasing by leaps and bounds, Pitt tried to maintain the Sinking Fund intact. But the soundness of this scheme hinged on surplus revenue, and after the outbreak of the war revenue was insufficient for expenditure. To preserve the operation of the Sinking Fund Pitt was thus compelled to borrow at a higher rate than that at which the original debt was contracted. The Bank of England crisis of 1797 has been noticed elsewhere; one factor in this crisis was, without doubt, the loans practically forced by Pitt from the Bank.

25. Income Tax

Force of circumstances in the end forced Pitt to break with the eighteenth century tradition. The crisis of 1797 converted him to the belief that future revenue must be raised much more from taxation, and much less from loans. In 1799 the income tax was imposed on all incomes above £200 at a rate of 2s. in the £. Incomes between £60 and £200 were charged at various rates, and incomes below £60 were exempt. It is interesting to notice that this new tax was levied with emphatic apologies. Pitt declared frankly that the objections against the tax had lost none of their force, and that it must be regarded as a temporary war-time measure only.

26. The Post-War Period

Immediately after Waterloo the pent-up opposition against the income tax burst forth in full fury, and in 1816 the opponents, led by Henry Brougham, succeeded in forcing its repeal. The loss of revenue involved the Government in financial difficulties, as the question of balancing the Budget seemed impossible, and the cry of economy was heard everywhere. Controversy centred round the National Debt, and even Ricardo proposed a capital levy. Modifications were made with respect to the Sinking Fund, and in 1822 and again in 1824, conversions on a small scale were effected. By 1825 the position had so far improved that Robinson was able to relieve the burden of taxation on the poorest classes, a policy that was continued by Wellington's Government down to 1830. Both parties were pledged to a gradual continuous reduction of taxation, but by this time it had become apparent to acute financial minds like Sir Henry Parnell that further reform was impossible unless the whole basis of taxation was revised. Parnell accordingly recommended a tax on income, and although the Chancellor, Althorp, was not unfavourably disposed towards it, the uncompromising

opposition of the Whig leaders placed a radical change of policy beyond the range of practical politics.

27. Peel

When Peel entered into office in 1842, the finances were again in disorder. Since the crisis of 1839 there had been an annual deficit; stress of circumstances thus forced him, like Pitt in 1799, to impose an income tax for a limited period. The rate was 7d. in the £, and an exemption limit of £150 was allowed. Peel had not been converted by Parnell's "Financial Reform," his motives were strictly practical; it was necessary to balance the budget, and it was equally necessary to remove certain taxes which rendered difficult a revival of trade. He stood far from the doctrinaire Free Traders; his fundamental position was that only a revival of trade could restore the finances of the country to order; he therefore imposed the income tax as a means to an end, believing that any evil effects would be nullified by the general increase of prosperity which would, in turn, permit him to abolish it.

The new tax was so successful that two years later Goulburn, the Chancellor of the Exchequer, was enabled to reduce taxation on currants and coffee; and in the same year he effected the first really big conversion of the National Debt, £250,000,000 of 3½ per cent. stock was reduced to 3¼ per cent., and later to 3 per cent. Though the repeal of the income tax was due in the following year Peel found it necessary to continue it, and so did the Government of Lord Derby and Disraeli. The fact was that neither Goulburn nor Disraeli could dispense with it or substitute it, and in 1853 it was left as a legacy to Mr. Gladstone.

28. Gladstone

The income tax controversy had reached an acute stage when Gladstone first went to the Exchequer. One party

demanded immediate repeal; another favoured retention but pressed for a differentiation of principle with respect to earned and unearned income. To any differentiation of principle Gladstone was strongly opposed, arguing, though it is difficult to see the force of his objection, that the efficiency of the tax would be greatly impaired. He expressed his agreement with the principle of Pitt, that the tax should be regarded as an emergency and temporary measure only; accordingly he arranged for a final remission in 1860. On the grounds that the lower middle classes had benefited considerably from recent reductions in indirect taxation, Gladstone lowered the exemption limit to £100; on the other hand he introduced the concession of a rebate up to $\frac{1}{7}$ of annual income where the savings were invested in life assurance, or deferred annuities. He also reformed the legacy duty which had been introduced by Pitt in 1796.

Like Peel, Gladstone wished to make the income tax surplus a means for reducing taxation which hampered the expansion of trade. Unfortunately, however, his plans were frustrated by the outbreak of the Russian War and the Indian Mutiny.

Peace did not relieve the burden of taxation, and the income tax was continued. Gladstone's scheme to abolish it in 1860 was foiled by the increase of the National Debt, the result of the wars. After 1861, however, the financial position of the country improved with a boom in trade which continued for several years, and in 1865 the duty on tea was reduced to sixpence, and the income tax to fourpence in the £.[1]

29. Summary of Mid-Victorian Finance

So far as internal financial policy is concerned no startling changes occurred during the next decade. On the question of taxation, Disraeli was not seriously opposed to Glad-

[1] The lowest point it reached since its first introduction.

stone. It is therefore not inopportune to pause for a moment to summarise in general the leading tendency in mid-Victorian finance. Gladstone was by far the most influential exponent of the policy, and, leaving on one side the question of Free Trade, with which we are not here concerned, the chief characteristic of these years was financial individualism. The theory was everywhere accepted that greater national advantage would accrue if money were left to fructify in the hands of private individuals, than if it were used on behalf of them by the State. Certain matters, of course, as Adam Smith had laid down, were recognised as beyond the scope of private effort, the defence forces, for example, but the dominant opinion was that State interference, and in consequence, Government expenditure, should be kept at a minimum consistent with national safety, not national welfare. This explains Gladstone's attitude, and the Tories were in general agreement, on the National Debt, the income tax, and indirect taxation. The National burden must be reduced; income tax must be considered as an emergency measure to be used only in times of war, or for purposes of financial reform, in order to stimulate trade so that in the added prosperity of the country new indirect burdens could be shouldered with ease.

30. A New Financial Era

After 1870 new circumstances forced a gradual modification of ideas. The decline of individualism as a theory of State has been outlined in another connection. Theory, however, only supplied a philosophical justification for a change, the driving force came from hard facts. On the one side, the gradual extension of the franchise after 1867, by transferring the balance of political power to the working classes, forced on the Government an increasing expenditure on the social services, education and health especially; while on the other, the new foreign policy of

Disraeli's Conservative Party laid the foundation of the future burden of armaments. The problem of the future was no longer a reduction of expenditure, but that of balancing a steadily-increasing budget.

The old concern for the National Debt, of course, died hard. In 1874 Northcote established a New Sinking Fund, and ten years later Childers made an abortive attempt to convert the 3 per cents. Goschen, the Chancellor of Lord Salisbury's Government, was more successful in 1888 when he converted the 3 per cents. to $2\frac{3}{4}$ with a future drop to $2\frac{1}{2}$ in 1903.

Between 1870 and Harcourt's Budget of 1894, the two most significant taxation changes were Gladstone's transference of the malt tax to beer (a very important new departure), and Goschen's diversion of revenue from publican's licenses, and from those on guns, dogs, game, and carriages to the new County Councils to be used for local purposes. These, however, were minor matters in comparison with the fundamental changes of 1894.

31. Harcourt's Death Duties

A brief reference to Harcourt's Budget has already been made. The subject is of such importance, however, that it needs more detailed consideration, for the Budget of 1894 broke with the old tradition in several ways. In the first place it was a frank admission that under the new social order, indirect taxation had proved inadequate to meet the requirements of the State. Secondly, it was an admission no less frank that the time had come when the richer classes of society must take a greater proportionate share of the national burdens. To this end Harcourt substituted for the then existing duties two new classes. The first, and the really vital one, was a new estate duty on the total value of all property, real and personal, and the tax was graduated from 1 per cent. to 8 per cent. This, the principle of graduation, was the fundamental change of

policy, for he declared at the same time that administrative difficulties alone prevented him from applying the principle to the income tax. By basing taxation on a new canon of justice, Harcourt broke, not only with orthodox Gladstonian finance, but with the tradition of the economists from Adam Smith to Mill which stood on the doctrine of proportionality. Progression in taxation is a natural corollary of all State theories that centre round the welfare of the community as a whole, but to the individualistic liberalism of an earlier generation, and to Gladstone, it was nothing short of confiscation. Once the breach was made in the old tradition, events moved rapidly.

32. Liberal Finance after 1906

The South African War, which closed the nineteenth century, introduced no really novel financial principles. The expedients of 1854, increased income tax, war loans, and indirect taxes on articles with an elastic yield were repeated. Important changes, however, quickly followed on the Liberal victory of 1906, for Campbell-Bannerman was elected on a programme of social reform. The first change was the reversal of Gladstone's policy with respect to income tax. Because of the accepted temporary nature of this impost, Gladstone always held it inexpedient to make any differentiation with respect to the sources of income; but Asquith, in 1907, lowered the rate from 1s. to 9d. in the case of earned incomes below £2,000 a year, and threw a still greater burden on the propertied classes by increasing the graduation of death duties on very large estates.

The really fundamental changes occurred in 1909, when Lloyd George introduced his " War Budget " for the great Liberal drive against poverty. To permanently finance the projected new social ameliorations new sources of income were necessary; Lloyd George therefore adopted the principle of income tax graduation in a modified form by introducing a new super-tax on incomes over £5,000,

such incomes being charged an extra sixpence in the £ on the excess over £3,000. The death duties were also more sharply graduated, and revolutionary taxes were laid on the unearned increment of land. Four new land duties were instituted—a tax of 20 per cent. on increase in site values after a certain date when the land changed hands; a 10 per cent. tax on the excess of the new over the old values on the reversion of leases; an annual tax of ½d. in the £ on the site value of undeveloped land; and a duty of 1s. in the £ on mining royalties. The Budget was rejected by the Lords, but as the Liberal Party was again returned to power the new system became law.

Between 1894 and 1906 the principles of English taxation underwent a revolutionary change. Not only did the income tax become accepted as the sheet anchor of the system, but direct displaced indirect taxation from the position of major importance. Secondly the individualistic position was frankly abandoned. That is the inner meaning of the Lloyd George innovations of 1909. The differentiation between earned and unearned income (introduced first by Asquith), the super-tax, and the steeply-graduated death duties, presupposed the community, not the individual, as the social unit, and a community, too, with rights anterior and superior to those of the individual. The changed outlook is peculiarly emphasised in the taxes on unearned increment. The justice of these taxes rested on the theory of the Ricardian socialists and Henry George, that as land values are social, not individual creations, the community may legitimately appropriate a part, at least, of the surplus. This is not to suggest that the Liberals of 1909 were socialists; indeed, in many respects there were, and still are, fundamental differences of opinion between the two parties. But it does clearly indicate a revolutionary departure from both the radical individualism of the early nineteenth century, and the individualistic Liberalism of the Gladstonian era.

CHAPTER XIV

FOREIGN TRADE

1. Introduction

English foreign trade has a long history, but until the fourteenth century it was almost entirely in the hands of foreign merchants.[1] The first turning point came in the fourteenth and fifteenth centuries when England began to develop her cloth manufactures and a mercantile marine; and, by the end of the sixteenth century, the Merchant Adventurers had driven out the foreigner from our overseas trade.

The closing years of this period saw the inauguration of the other great chartered companies of which the Levant, and East India were the most important; and from the accession of James I. down to the Industrial Revolution, the history of our foreign commerce is a history of the development of these companies.[2]

2. The Efforts to Obtain Markets

The economic aim of Government was to secure a monopoly of our goods. The policy was partly intentional; largely it grew out of the conflicts of traders abroad. This explains, if it does not excuse, the tolerance of the often hideous methods by which markets were opened. Cruelty, oppression, and robbery were common; the slave trade was lucrative. Brute force was used to secure freedom of trade. Yet it was recognised that if markets were not made accessible in some way, the Dutch or the French would secure them and keep us out. Mercantilism was dominant.

[1] For details see Part I., Chapter III.
[2] Part I., Chapter V.

Manufactures were increasingly exported, woollens in particular. Eastern products were obtained from India, and the trade with Italy was important. The colonies, in particular North America and the West Indies, sent sugar and tobacco, and provided a ready market for our goods. Friendly trade relations followed the marriage of Charles II. Bombay and Tangier, two important strategic points, were also obtained. This reign saw the continuation of our commercial development, which had begun after the Magnus Intercursus. The Methuen Treaty of 1703 favoured Portugal at the expense of France, and the chance of commercial peace with our rival was lost.

The South Sea trade developed early in the eighteenth century, and led to the crisis of 1720. The colonial trade became very important, and forty years later its volume was a third of the whole. It received a sudden stimulus about 1760, because of the great victories of Clive (at Plassey) and Wolfe (at Quebec), which opened up much of India and Canada respectively. These and other successes, by widening the market for English manufactures, encouraged new methods, and made the Industrial Revolution possible.

Regulated companies had been freely criticised. In these there was considerable liberty given to the individual merchant, but outsiders were not encouraged to enter. Joint-stock companies were used when a large capital was required. As commerce became more distant, the latter kind of organisation, *e.g.* the East India Company, began to be dominant. After the Industrial Revolution the regulated companies declined considerably.

3. The Complexity of Trade in the Eighteenth Century

Foreign trade now became more complicated. New manufactures developed. The hardware industry became more important at Birmingham and Sheffield, and the cotton industry made great strides in Lancashire. Old

industries, *e.g.* wool-weaving, increased in importance. Other advantages existed besides increased opportunities and improved processes. The constructive work of the old gilds was not altogether lost. These had set up a high ideal of craftsmanship; an organisation of industry also existed. Thus the great impulse to manufacture resulting from the sudden increase in foreign demand found a fairly elastic system on which it could work its effect; production was far more advanced than it was a century before. The old mediaeval honesty did not persist; the tradition of good workmanship, however, was continued, though in less degree.

Again, the English workman in 1760 was efficient, though the system was not. He had been in touch with the land, at least in the early eighteenth century, while the hereditary skill had been handed down from the old gildsmen. England had been a comparatively peaceful country; the arts of peace had a chance to develop.

Further, as processes improved English manufacturers found that they possessed all the essentials of success. The complex geological structure of the land meant the presence of a large variety of minerals. Fine harbours occur on most of our coasts. As the Continental trade relatively declined, London began to lose its exceptional position. The Mersey and the Clyde opened up two great industrial districts respectively, and on each grew up a large port favourably situated for American trade. Even after the Declaration of Independence commerce with the States was important.

The Tyne, Wear, Tees, and Humber were similarly situated to these rivers. Coalfields lay near the first three, and the last was easily reached from the West Riding industrial districts. Continental trade, which increased in amount, was easily carried on through the new ports Thus the North was in close touch with the whole world by means of the two series of ports.

Just as colonial demands stimulated production, so the cheapening of widely-used goods which followed this stimulation was followed by an increase in demand from Continental countries. The new articles of commerce were essentially different from those of the Venetians and Dutch in earlier times. The Italians brought luxuries for the consumption of the rich. The spices exclusively controlled by the Dutch were very valuable when salt meat was the winter food; their high price, however, caused them to be used only by the upper classes.

Hence the old commerce was always limited; it was a merchant's aim to control definite channels of trade, so as to obtain the greatest possible share of a defined profit. After the Industrial Revolution, those goods were most cheaply produced which appealed to the widest circle of consumers. The aim was now to open out trade. Our traders no longer appealed to civilised populations solely on the ground of quality: the cheapness was the chief attraction.

4. Cheap Manufactures

A new departure undoubtedly grew up in that certain manufacturers aimed at cheapness at all costs. This was obtained partly by the use of child labour and partly by the serious deterioration of quality, but the competition of the hand weaver and the conservative manufacturer, which persisted for some time, helped to preserve the old standards. In the worst times good employers existed who made satisfactory goods at a reasonable price, without undue oppression. The high value set on England's manufactures was upheld.

The cheapest goods found a ready market in India, in semi-civilised countries, and in regions where effective competition did not exist, *e.g.* our colonies. In these cases either the demand for necessities of clothing was so great or the buying power was so small, that the trader in

cheap goods was advantageously situated. The market for cheap cottons had not reached its limit. The conservatism of the wool industry receives a further explanation; cotton in part displaced woollens, so that a large sudden increase in demand of the latter was impossible; improved methods were less pressing. To-day expensive fabrics are made profitably outside the West Riding, but the market is limited, and labour is more important than machinery in their production.

5. The Effect on Agriculture

This great development meant a displacement of labour and capital from agriculture. England began to specialise in manufacture and its attendant trades. It became so rich that it could afford to buy most of its food from abroad. This was the last stage in the process by which England developed from a wool- and corn-producing country to one which imported these same commodities. Cotton, of course, was always imported, at first from the East and afterwards from America and Africa. The native wool production remained almost sufficient for some time after 1760, but to-day the bulk is imported from Australia. Corn was different. A lack of this commodity affected all, and yet agriculture declined. In spite of protection and of the drastic Corn Laws after 1815, foreign corn was imported. When it was kept out, the country suffered.

Unfortunately the French Wars provided an opportunity for the employer willing to take risks and without scruple. Now became prominent that oscillation in trade which has never since ceased. Much was unavoidable. Merchants often held large stocks which they could not force through the Continental blockade. When a short peace came and trade revived, the factories could not supply goods fast enough. The war also affected foreign trade in the attempts to exclude corn; hence the results

persisted until the repeal of the Corn Laws. The normal development began some time after the Peace of 1815. The results were permanent, as a new tradition had grown up.

6. Foreign Trade and the Industrial Revolution

The total volume of foreign trade increased enormously during the first half of the eighteenth century mainly because of the growing re-export trade to Europe of the produce of the American Colonies and the West Indies. Between 1760 and 1785, for several reasons, among which may be mentioned the troubles in India and America, and the wars with France, the rate of increase in foreign trade declined. Towards the end of the century the export trade again boomed, reaching unprecedented figures by 1800. Part of this trade consisted of re-exports to European countries of tobacco, timber, rice, sugar, and textiles from India and America, but the major portion consisted of the products of our own domestic manufactures, of which woollen goods were the most important.

Imports consisted mainly of manufactured luxury goods from the Far East, and raw materials from America; but we also imported large quantities of timber, iron, copper, hides, and furs from Sweden and Russia, tin plates and skins from Germany, wines and brandy from France, and linen goods from Ireland.

After 1815 the primary problem was to open up new markets for the products of the mechanical inventions of the Industrial Revolution. Between 1815 and 1850 the measurement of export values is complicated by the changes in the wholesale price levels, but it is not inaccurate to state that during this period the annual value of British exports increased by 300 per cent.

The changing character of our exports is also significant. In 1800 our major export was woollen goods, but by the end of the Napoleonic Wars cotton and woollen goods had

changed places in importance, and the exports of earthenware had trebled. By the middle of the nineteenth century the textiles, cotton and wool, accounted for two-thirds of the total of our exports; the metal trades were still relatively unimportant from the export point of view although they were growing rapidly. The phenomenal rise of the cotton industry meant a great increase in non-European imports; on the other hand the European market for our manufactured goods was becoming more and more important. In 1850 about 45 per cent. of our exports went to European countries, as against 55 per cent. to America, Asia, and Africa.

About 1840 the trade with the West African Coast began to improve. There was a large market for cheap textiles and hardware among the natives, who willingly parted with their ivory and gold. Palm oil and fancy timber were important products. The East India Company had lost the monopoly of Chinese trade in 1834, but the English Government failed to open up effective communication. Opium troubles led to war in 1840, and two years later certain ports were opened. This led to a great increase in trade, which doubled between 1834 and 1850. Trade with India suddenly increased from 1844 to 1850.

At the latter date England exported 25 millions worth to the Continent, chiefly to Northern Europe. The export to Asia had risen to 11 millions, and to the United States to 12 millions. The export value to the American Colonies had hardly changed from that in 1830. The export value to Africa was 2½ millions.

7. The Effect of Free Trade on Foreign Trade

The year 1850, which we take as an arbitrary landmark, marks the beginning of the effect of the Free Trade regime. In addition, commerce was being continuously freed by Gladstone's policy. Trade at once expanded, but became proportionately more sensitive. The total exports in 1849

were 64 millions, in 1850 were 71 millions, in 1854 were 97 millions, in 1860 were 135 millions, and in 1870 were practically 200 millions.

Improved production was partly responsible (note also the rise of prices). Goods were progressively cheapened owing to the improvement of machines and organisation. The trade with the Continent was chiefly affected, but that with China increased when the treaty ports were opened in 1858 and 1860.

Three of the outstanding events of the nineteenth century are the gradual opening up of Australia, the completion of the Suez Canal (1869), and the construction of the great trans-American railways. Together these events made British commerce world-wide. The effect of the Suez Canal on shipping was tremendous. It accelerated the transition from sail to steam, as sailing vessels required to be towed through the canal; and by shortening considerably the journey to Australia more tonnage was liberated for other employment. The number of vessels passing through the canal doubled between 1880 and 1890, and the tonnage, a better test, increased five times.

Between 1850 and 1870 foreign trade followed a progressive expansion except for the interruptions in 1857, and the American Civil War which temporarily ruined the trade of Lancashire, and the financial crisis of 1866. Throughout these years Britain had a large export surplus which was invested overseas in Government stocks and railways all over the world. During the period the net earnings of British shipping doubled, and by 1870 we were investing abroad about £40,000,000 per annum. At the same time, however, cotton goods still dominated our export trade (about a third of the total exports), with woollen goods second in importance. The exports of iron, steel, and machinery also increased at a remarkable rate. They doubled in value between 1855 and 1870, and between 1870 and 1873 there was a further increase of 50 per cent.

Britain, during the mid-Victorian period has rightly been described as the "Workshop of the World," and it is not inaccurate to say that during the third quarter of the nineteenth century we clothed all nations, receiving in return a steadily increasing quantity of raw materials and foodstuffs to supply the needs of our industries and people. Our principal markets were the United States and India. In Europe, Germany was the main outlet for our goods until after the Cobden Commercial Treaty of 1860, when the French trade increased by leaps and bounds. Australia, after the gold discoveries of 1854, and China were also markets of importance.

The causes of this enormous expansion of British foreign commerce are matters of opinion. Popular opinion at the time (and the view is still held to-day) attributed it to our Free Trade policy. But it must also be remembered that during these years there was a definite trend almost everywhere in the direction of freer trade. Free Trade alone, however, though a solid contributary cause, does not explain the phenomenon wholly. The great improvements in communications and transport by land and sea, together with the new supplies of gold from California and Australia, made a huge trade expansion possible; and our insular security from international disturbances, together with our superiority in productive power and fuel resources, enabled us to take full advantage of the opportunity.

But even by 1870 signs of trouble ahead were visible. The Franco-German War of 1870 had the usual effect. The result was a dislocation of commerce. Certain branches were stimulated for a time, but the inevitable reaction came after the Peace. Others were adversely affected in war time. The total foreign exports were hardly affected. These had been trebled in value in the twenty years before 1873, while the colonial value was less than doubled. This effect was not permanent. In the year mentioned the colonial exports were of only quarter of the value of

the foreign; in the early twentieth century they were about half, the same proportion as fifty years previously.

8. The Apparent Check to Progress

The sensational rise in the value of our exports ceased in the early seventies. Till about 1880 there was little apparent progress, and after that the values increased, with the usual alternations, at a moderate rate. This change in the speed of progress is illusory. If we remember the falling prices after 1873, we shall see evidence of a steady increase in the real value of exported goods. Further, taking the century as a whole, there is a fairly steady progress, with little break at the critical year of 1873. Though the continuity was not broken, however, the rise in prices, by its temporary stimulation of industry, caused some increase of exports, and *vice versa*.

The progress of foreign trade seemed to be decided chiefly by the growth of population and increase of efficiency in manufactures. Yet there were important breaks. Canada and Australia, by taxing our manufactured goods, struck a blow at our trade. The effect of a tariff is to diminish the exchange of goods. Colonies which have reached a certain stage wish to throw off their leading-strings and make their own goods. They cannot generally do this efficiently at first, and must pay heavily for their luxury. The Protectionist theory is that manufactures will develop behind the tariff wall, finally giving prosperity to the country.

England had given the more important colonies a practical independence; she had been warned by past experience that it was impossible to monopolise the colonial market permanently. Thus the home country had to suffer. A depression followed in 1873, when there were many failures. In the early eighties tariffs against us were increased, especially in Germany and Russia, and the effect of these on our export trade was severe.

9. The Excess of Imports over Exports

In this period a singular effect became prominent. In 1870 the excess of imports over exports was 69 millions, in 1880 it was 121 millions, and in 1885 100 millions. This was not a mere accident, but a constant occurrence. In the old mercantilist days this would have been viewed with alarm. The merchants would have held that we were owing money to foreigners and the country would be drained of bullion. This method of reasoning is common enough even to-day.

Some flaw is apparent. It is not likely that year after year a huge debt will be piled up. On the one hand, we cannot suppose merchants as a whole to be thus permanently indebted; on the other, if the country is being drained of bullion, our supplies would long ago have vanished.

Of course, an exact agreement between estimates of imports and exports is impossible. Estimates are crude, and pitfalls are numerous. Still, a deficiency of £100,000,000 must have a solid basis. Again, the phenomenon has continued to the present, while other great industrial countries show the same effect. Further, agricultural States, *e.g.* the Argentine, show an opposite tendency.

Economists insisted that imports must (in theory) exactly balance exports. The explanation was found in "invisible exports." England having overcome her French and Dutch rivals obtained the world's carrying business. Her industrial developments led to the growth of London, Hull, and Liverpool, so that many foreign merchants found it easiest to send their goods through an English port. Even to-day it is often cheaper to export goods from a French port to Holland via London than directly.

10. The Carrying Trade

England's advantage in shipbuilding had the same effect. For long distances our steamers were generally found most

convenient. If this was the case with commercial rivals, still more was it so with backward countries. This business was very lucrative, and English merchants as a class became creditors to foreign countries for large amounts. They were paid by means of a bill of exchange, which, being transferable, could be used as money. Hence some merchants in the country affected sent goods to the value of the bill, and the final result was this, that the debt was paid by importation of goods. The merchants' charges did not appear in the official estimates, so that imports had a greater value assigned to them.

11. Foreign Tariffs

Out of many other possible factors of this deficiency in exports one may be selected. England had an immense amount of capital seeking a high rate of interest. This was attracted to new countries either for needy governments, for agricultural development, or for railway construction. Notwithstanding many losses, a fairly high interest was paid on the average. This was not remitted in money, but in some kind of security. As before, the bulk of the debt was then sent as goods.

Between 1880 and 1914 English foreign trade was adversely affected by tariffs and wars. The fall in prices after 1876 caused an upward tendency of tariffs in Europe. Germany adopted a protective tariff in 1880, and France also began to move in that direction. The McKinley tariff in 1890 raised the United States' duties against us and crippled our trade for a time. Some relief was obtained by the Wilson tariff in 1894, but three years later the Dingley tariff reacted to our disadvantage. In 1898, however, Canada granted us preferential treatment.

With the Dingley tariff of 1897 America definitely committed herself to the policy of high protection; down to 1902 the German tariff was low, but in that year, in consequence of an alliance between agrarian and industrial

interests, duties were heavily increased against both imported foodstuffs and manufactures. From 1902 to 1914 high protection made ground everywhere outside England, and this policy had certain inevitable reactions on our foreign trade.

12. The Effects of Foreign Protective Policies

The rate of increase in our exports to America began to diminish; our exports of coal to Germany to feed her manufacturing industries increased considerably; on the other hand Germany began to produce many articles she formerly imported from Britain. This, of course, applied to other countries as well, but it was Germany and America who threw down the special challenge to English industrial and commercial supremacy. Down to 1890 Britain produced half the coal mined in the world, but by 1900 America's annual output exceeded ours, and Germany was overtaking us. Down to 1890, again, England led the way in the production of iron and steel, but in 1900 our output was much below America's, and by 1913 Germany also surpassed us. So far as exports are concerned we maintained our supremacy somewhat longer, as even as late as 1900 we were exporting as much as America, Germany, and France together. After 1900 Germany's exports grew very rapidly and they exceeded ours by 1913.

In the textile trades, although other countries were increasing their production at a rapid rate, our leading position was maintained. Even by 1914 our supremacy in these industries was not seriously threatened except to the extent that an increasing number of countries were attempting to supply their own home market behind a tariff wall.

During the decade 1890-1900 British capital exports declined considerably; but from 1904 onwards they increased at a phenomenal rate, and in 1913 we were exporting more capital than in any previous year.

The outstanding feature of the years 1880 to 1914 is that while British exports, in spite of rising tariff barriers, increased in the absolute sense in almost every market, they declined relatively to those of other countries, especially Germany and America. This, of course, is a question independent of Free Trade or Protection; it was a natural and inevitable result of the growth of industrial civilisation in other countries which deprived England of the special position she occupied, largely because of accidental circumstances, between 1760 and 1850.

Incidentally, it may be noticed that the new American and German competition forced Britain to abandon the cheaper lines, and to concentrate on the higher quality grades of goods.

13. Foreign Trade and the Colonies

A more fundamental change, however, was the new values given to the colonies. From the American War of Independence down to 1870 representative opinion viewed the colonies with disfavour. The abolition of the slave trade after 1807, and the suppression of existing colonial slavery in 1833, appeared to diminish the value of the tropical colonies. The very essence of any colonial system seemed to rest on some form of preferential tariffs, a factor which caused the free traders to view the colonies with suspicion. Again, the expenses of administration, and of naval and military protection, together with the constant danger of entanglements with foreign Powers, were held to far outweigh any probable advantages likely to be derived from colonial possessions. Added to this, our experience in America seemed to suggest that where new lands were colonised by European settlers, secession, in the long run, was inevitable.

It is true that a small minority like Wakefield, Buller, and Molesworth dissented from the general opinion, and advocated the advantages of colonial settlement as a means

of building up new potential markets and of providing an outlet for our surplus population, but their voices cried in the wilderness.

After 1870 changing circumstances modified public opinion. The new American and European competition and the new high protectionist policies of certain countries began to place the colonies in a new light. France, after the Franco-German war, endeavoured to find a new equilibrium with Germany in the shape of colonial expansion in North Africa; Germany, after 1890, was compelled to acquire new markets and supplies of raw materials; hence the scramble for Africa and the Far East began.

England could not regard this new trend with indifference. The possibility of being excluded from valuable areas by means of tariff walls forced her into action, and to abandon the policy of drift.

But apart from semi-political considerations certain economic circumstances gave new values to the colonies. Steam shipping and railways not only comparatively annihilated space (Clive journeyed to India in eleven months, the voyage now takes 21 days), but railways allowed the settlers to leave the disease-stricken coastal and river lands for the healthy interiors. Advances in tropical medicine had a value difficult to over-estimate in this respect. The invention of cold storage also gave a high value to numerous colonial food products that previously were waste.

These general considerations were more or less anticipated in the Minority Report of the Royal Commission on the Trade Depression in 1886 which suggested steps towards an Imperial Customs Union as a counterblast to the increasing protection in Europe and America.

14. The New Chartered Companies

Individual efforts, however, preceded Government intervention. A group of able imperialists founded new chartered companies to acquire virgin lands in Africa and

the Far East. In 1881 Dent founded the North Borneo Company; Goldie, the Royal Niger Company in 1882; Mackinnon, the British East African Company in 1888; and Cecil Rhodes, the British South African Company in 1889. These companies established a claim over new lands when the State policy was still undecided; hence their historical importance lies in the fact that they acquired for the Empire by private initiative territories which otherwise would have been annexed by Germany, France, Portugal, or Belgium in the scramble for Africa.

These new companies differed in several particulars from the Chartered Companies of the sixteenth and seventeenth centuries. In the first place they had no monopoly of trading rights; their primary object was to open up for the Empire new markets and sources of raw materials. Another significant difference was that their spheres of influence were inland; the early companies kept to the coast, or established trading posts along the banks of navigable rivers. Another difference was that their territorial rights were intended to be transitory only; as soon as a convenient opportunity arose the British Government purchased these rights at a nominal figure and acquired Rhodesia, Nigeria, and British East Africa.

15. Joseph Chamberlain

The empire-building genius of Cecil Rhodes in Africa found echo at home in the work of Joseph Chamberlain at the Colonial Office. In 1895 the Colonial Office was considered a secondary department; when Chamberlain left it in 1903 the Colonial Secretary had become one of the important members of the Cabinet.

Chamberlain was perhaps the first man of front rank at home to discern the importance of the colonies in the new world economic conditions, and his work at the Colonial Office forms a landmark in the history of our Imperial administration.

His policy was above all else constructive. Breaking away the old red tape he infused a new spirit into the relations between the colonial governments and Whitehall. Like the founders of the Chartered Companies he realised the necessity for huge capital expenditure in Africa and elsewhere, on communications, railways, docks, and roads. In order to raise the necessary capital he was instrumental in obtaining the passing of the Colonial Loans Act in 1899, which enabled the Treasury to advance loans to certain Crown Colonies, repayable in fifty years. He succeeded also in enabling the Crown Colonies to borrow in the open market, and in getting Colonial inscribed stocks included within the list of Trustee Securities in 1900.

Chamberlain was also the moving spirit in the war on tropical diseases, and it was mainly through his efforts that the Schools of Tropical Medicine were founded at London and Liverpool. The conditions of tropical life were revolutionised in twenty years, and districts like the Gold Coast (the former "white man's grave"), previously almost uninhabitable on account of swamp fevers, now produce huge quantities of cocoa and other products.

Chamberlain also took an important part in the question of Imperial penny post; in the passage of the Commonwealth of Australia Act in 1900; and in the economic recovery of the West Indies.

16. Colonial Conferences

Colonial Conferences were held in 1887 and 1894, but it was not until the Conference of 1897 that economic policy was discussed seriously. In that year Britain denounced the commercial treaties which prevented her from granting Imperial preferences, and Canada offered a tariff preference unconditionally. Between 1897 and 1907, other self-governing Dominions followed Canada's example, and English exports to Empire markets rose sharply. At the Conference of 1907 a change of great significance occurred.

Up to that date the Conferences had been between the Colonial Secretary and the Colonial Premiers; in 1907, however, the Prime Minister and the Cabinet were present, the Conferences were made permanent, and the name was changed from Colonial to Imperial Conference. The normal Conference due in 1915 was postponed on account of the War, but an Imperial War Conference was summoned in 1917 to which India was invited, and at which it was resolved that each part of the Empire should grant specially favourable terms to the produce and manufactures of the others.

These Conferences have proved of vital importance in the building of a cohesive force between the various parts of the Empire. Each one has furthered some step in the framation of a common economic policy with respect to commercial law, shipping, or emigration, and continuity of policy is now ensured by means of a permament secretariat.

17. Further Methods of Stimulating Colonial Trade

As early as 1897, the Conservative President of the Board of Trade, set up a Committee of Inquiry for the purpose of discovering the most suitable means of diffusing information of trade interests around the Empire. One result of this was the establishment of the Commercial Intelligence Branch of the Board of Trade. In 1908 trade commissioners were attached to Canada, Australia, New Zealand, and South Africa, and associated with them were local trade correspondents whose functions were to report home on current contracts with respect to new capital works, and to assist new trading development. During the War additional commissioners were appointed for India, the West Indies, and the Straits Settlements.

In 1904 the first Statistical Abstract of the British Empire was compiled, and in 1918 the Imperial Mineral Resources Bureau was established for the purpose of publishing information respecting the mineral resources of

the Empire. Between 1913 and 1918 entomological and mycological institutions were established to fight the insect pests and fungoid growths which damage the crops in various parts of the Empire. Colonial agriculture has been assisted in various ways by the Imperial Department of Tropical Agriculture, established first in the West Indies in 1898 by Chamberlain, and subsequently in other parts of the Empire. The successes of this department include the transplanting to the West Indies of sea island cotton from Carolina; improved varieties of sugar cane, and cotton similar to the American type in Nigeria and Uganda.

Under the above circumstances it is not surprising to find that between 1896 and 1913 there was a definite increase in the relative importance of Empire trade. In 1896 the percentages of our exports to the Empire and the rest of the world were 35 and 65 per cent. respectively. In 1913 the percentages had changed to 37 and 63. The period 1914 to 1932, containing as it does a world war and an unprecedented trade depression, is not a safe basis for comparison. There is, however, a slight increase in the real volume of Empire trade over the figure for 1913, and a considerable decrease in the real volume of exports to foreign countries. On the whole while British exports have increased considerably to Nigeria, New Zealand, the Straits Settlements, and the West Indies, those to Germany, Russia, and the Far East have been seriously reduced.

18. Wars, 1894 to 1914

Returning again to the world as a whole, English foreign trade between 1894 and 1914 was adversely affected by warfare as well as by tariff policies. The Japan-China War of 1894 struck a blow at our Eastern trade. War broke out in 1898 between the United States and Spain, and the next year the Boer War began. In 1904 the Eastern trade was again affected by the Russo-Japanese

War. Yet the net result of the rise of Japan has been to increase our trade with that country, at least until recent years.

The Boer War broke out when trade was very good. The effect was ruinous, but after the peace of 1902 foreign trade slowly revived. Confidence was at last restored, but speculation in New York led to a great financial crisis in 1907, which again paralysed our trade. After the revival, trade again increased with leaps and bounds, though the boom showed some signs of cessation even before 1914. In the present century prices have risen greatly, so that the real progress of commerce is less than is apparent.

19. A Survey of the Last Half-Century

Most countries have increased their trade with us, but the relative positions of the various countries has changed. The United States long held the first position, but they were gradually displaced by India, and in 1914 exports to Germany headed our European list. Great changes have taken place in the nature of the imports and exports. The nineteenth century saw a gradual increase in the number of commodities exchanged. Trade lost its simplicity. Yet the main trade routes persisted and increased in importance.

The old staple imports have decreased in relative importance. Wine has lost its position, as have spirits and tobacco; a contrast with eighteenth-century trade. The cessation of the linen industry in England affected the flax supply. Food products, particularly meat, became the most important imports. Sugar and tea were immensely affected by the duty reductions.

As regards raw materials, wool from Australia became an important article as the English supply fell short of the requirements; cotton supplies also increased considerably. The immense increase in certain imports has been caused by the opening up of new countries, *e.g.* Australia in the

earlier and the Argentine in the latter part of the century. New supplies of cotton have been discovered. The development of cotton-growing in U.S.A. was phenomenal, while Egypt and India became keen rivals.

The meat industry grew partly because fast steamers could bring the product from Canada quickly, but chiefly because the use of frozen meat allowed England to import it from Australia, New Zealand, and the Argentine. The trade in live animals became very important. Canada also sent us cheese in such quantities as effectively to compete with the home-made article.

Fruits were brought from California, the West Indies, etc. Tinned foods became important, fruits being brought from America, salmon from British Columbia, and even rabbits from Australia.

The United States gradually changed from a purely agricultural to an industrial country. The Eastern States lost their farming character and settlement was pushed further west. Two opposing tendencies became noticeable; improved methods increased the yield of corn, while the increasing population tended to reduce the amount available for export. The net result was that England had to look elsewhere for part of its supplies. Canada was gradually opened up and the process is not complete, but it began to follow the example of U.S.A. The Argentine developed, and late in the century Siberia showed that it had great possibilities in wheat-growing.

Changes in European trade have been fewer. Russian wheat from Odessa and furs from the North kept their importance, while Spanish and Swedish iron imports in the last half-century were new departures in the main. The piercing of the Alps by tunnels gave a stimulus to the trade with Mediterranean countries.

Our important exports became more and more exclusively manufactures. England required all the raw materials she could obtain because she possessed coal.

This was also the one important raw material that was exported. Grave questions were raised, and Jevons prophesied the speedy working out of our deposits. Fortunately geological researches showed that there was little fear in this direction. The discovery of seams under rocks led to the sinking of deep workings in the twentieth century. The export duty which was occasionally put on coal has now disappeared. Similar fear for the loss of our industrial supremacy was occasioned when Gladstone took off the duty on exported machinery, but it was groundless.

SHIPPING. The growth of shipping almost exactly reflects the progress of foreign trade. Last century saw the triumph of the steamship for industrial purposes; commerce was more conservative than passenger traffic. The single Scotch steamboat in the early part of the century contrasts with over 100 in Great Britain in 1825, with 400 ten years later, and with nearly 1,000 in 1845.

The route to India may be cited as an example of trade progress. In 1826 ships still sailed to Calcutta via the Cape; in 1837 a quick service was opened up through the Mediterranean, across the Suez isthmus, and thence by the Red Sea. This continued until the construction of the Suez Canal (1869).

The growth of foreign commerce in the last century had not the same effect on the distribution of population as in the Middle Ages, or as the industrial developments after 1760.

THE PORTS. The mercantile population was focused at certain points, and towns such as Liverpool grew up which had little organic connection with the country around. The difference is shown by the fact that Manchester was the real centre of Lancashire activity and opinion; the latter was represented at one time by the famous "Manchester School," which was, above all, a

special development of the Industrial North, having little in common with cosmopolitan ports.

The phenomenon is most clearly marked in the Low Countries, where Antwerp, Amsterdam, and Rotterdam are almost German cities, and in London, which had little influence on the northern towns. Connected with this is the fact that the great ports did not usually attract the population from distant parts of the country; Hull is nearer to Rotterdam in spirit than to Leeds.

The Panama Canal, officially opened in 1914, has revolutionised commerce between Europe and the Western Coast of America, and has affected the trade with Eastern Asia.

CHAPTER XV

LONDON, SCOTLAND, AND IRELAND

LONDON

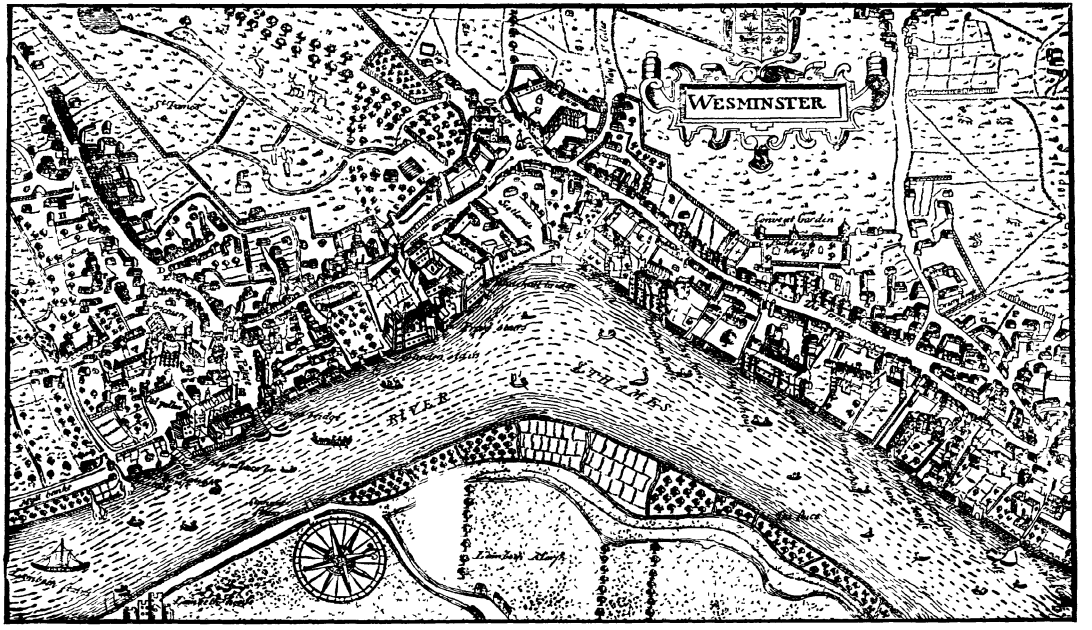
London occupies such a dominant position in the history of England that it is convenient to transcend the limits of this volume in tracing its development.

1. The Position of London

London is marked out by nature as the most important town in the British Isles; its advantages have made it the largest town in the world. Its superiority was even more marked in early times than to-day. First, England was very open to foreign influence by the wide mouth of the Thames. This faces the Continent and lies opposite other rivers which drain much of what has always been a prosperous part of Europe. In mediaeval times the opposite coast was inhabited by a wealthy race.

Next, London always had a selection of trading facilities. Northern France and what is now the German coast have long been settled by divergent peoples, differing politically and economically. Flanders, opposite London (down the Thames), was the dividing country. Political and economic movements never completely ruined London's trade.

The countries of North-West Europe form a kind of bow, within which London is situated. Hence it was a convenient centre for all parts. Thus the Thames became the most important river for Continental traffic. The exact site of London was fixed by the fact that there was no firm ground on both sides of the river at once below the present situation of London. Thus a town grew up at the lowest bridge-point of the river.



PLAN OF WESTMINSTER.
From Norden's Survey, taken in Queen Elizabeth's Reign, 1593

London owes all to the Thames, which at high tide could always float the largest ships. Further, the navigable river itself opened up a wide, fertile valley, and easy routes led to the Bristol Channel. The Thames, however, was also an obstacle to traffic. East Anglia was always very fertile. Dover was the natural landing-place of foreigners. It was impossible to march directly to the richest districts from abroad. Further, the South-East itself in early times was the most civilised region, and the Thames had to be crossed if the Midlands or the North were to be reached.

The lowest crossing-point was the aim of travellers; this was London. In Roman times, therefore, roads converged to this point. The number of highways made was limited, so that traffic tended to pass through London even when it was off the direct line. It obtained not only all the trade between South-East and North-East England, but much from the South to the North. It was a crossing-point of land and river routes.

London lies in the middle of a fairly fertile region. Further, it is hemmed in by two lines of chalk hills. This was of extreme importance when a good supply of wool was essential to England's prosperity. London lies in a central position for the sheep districts of the South-East.

Further, these hills were little obstacle to trade, because they were pierced by natural gaps; communications northwards, and southwards to the sea, were easy.

2. London's Origin

London, then, was essentially a trading town, a centre of foreign influence. Its British origin is doubtful. The name is Celtic, but the evidence of occupation is inconclusive. It is hard to believe that no pre-Roman settlement existed, when we know that Tacitus regarded it as an important commercial centre as early as 61 A.D.

It was fortified by the Romans and became very

important. Boadicea caused the death of 70,000 people in London and St. Albans. We have direct evidence of its wealth about 300, when a bridge over the Thames certainly existed.

London is not mentioned in the Saxon Chronicle of the sixth century. Possibly it was quite deserted; certainly its importance waned. It may have been left even before the English seized it. On the other hand, there is some evidence to show that London kept its independence, though not settled by the invaders.

We know of its existence in 604. In this century it again became prosperous, and a large slave trade was carried on. London was a neutral town in the middle of contending States; all could buy and sell freely here. It became more important till the invasion by the Danes, who partly destroyed the city. There is also evidence that they themselves settled it.

King Alfred first made London pre-eminent in England. He fortified it strongly, and its progress was a measure of the country's improvement. It made a strong defence against Canute, who realised its importance. Gilds first appeared in Anglo-Saxon times; there were associations to keep the peace (frith gilds). In the eleventh century London was supreme, though the largest towns were comparable with it. William, in 1066, made its conquest his first aim. Once he held the city he was master of the country.

3. The Effect of the Conquest

After, as before, the Conquest, the progress of London was much more closely bound with the personal character of the king than was that of the nation as a whole. Under a strong ruler trade progressed; merchants were emboldened. Under a weak king traders feared to lose their goods, and the speculative instinct languished. Alfred made London a great town; William wisely gave it such

freedom that it became the centre of government in all its forms. Further, feudalism was not a new departure; there was now even an increase of centralisation, and London gained in power.

The freedom was relative. London was English and thus had to submit to restrictions. The first charter was granted by Henry I., but it was often broken. Its importance lay in the fact that the citizens looked on it as a right and could appeal to it under oppression. The town was assuming a mixed character, and the presence of a large Norman element increased its importance. Many merchants and craftsmen had emigrated to the new country from Normandy, and the immigration of Flemish weavers soon followed.

4. The First Charter

The charter of Henry I. probably did little more than confirm existing customs. There seems no evidence that London possessed a merchant gild (in the usual sense); the chief advantage of a gild was to obtain trading facilities, which London evidently always possessed, as did probably the south coast Cinque Ports.

Henry I. recognised London as a Corporation, and the County of Middlesex was given to it. The city's power was seen when Matilda took away its privileges: the citizens were the means of Stephen's success, but London suffered under that weak king. Craft gilds began to be important. We know that they existed in the early twelfth century. Before 1200 they had become an object of envy, and "adulterine" gilds were formed without legal basis.

We possess the first picture of London in a description by Fitzstephen in the time of Henry II. Its immense wealth and great commerce are admiringly portrayed. The houses, however, were built of wood, and thatched or covered with mud; hence fires were common.

The reign of John was one of change. Foreign merchants came here and their relation to the English was a source of trouble. In Magna Carta John promised to give the citizens all their ancient rights, which he had overruled.

5. Edward I. The Policy of Edward III.

London suffered also under Henry III. The Hanse received privileges against the wishes of the native merchants; worse, however, was the fact that civil strife led almost to a cessation of trade. The reign of Edward I. marks a turning-point; order was restored. Now began the national policy of the kings; hitherto, the citizens had been local in their outlook.

The disorder had been caused, partly indirectly, by jealousy of the foreigners. London merchants obtained the privilege under Henry I. of trading all over England, but their opportunities at home were limited by foreign competition, while they were not allowed to participate in Continental trade. There were fewer restraints on foreigners, and they were relatively insufficiently taxed.

The hatred concentrated on the Jews. Richard I. and John had protected them for their own purposes. Edward I. expelled them. He refused to yield to the popular clamour with respect to the other aliens recognising that foreigners had performed a real service in the past.

In this reign the Mayor, Walter Harvey, attempted to make all workmen join a gild. He was premature, but his ideas were taken up later.

The city again received a Charter under Edward II. For some time the government appears to have been in the hands of traders, but later in those of the companies. London again showed its power by deposing the king.

The reign of Edward III. is another landmark. London again prospered under a strong king. At first he restricted the liberty of foreign merchants; these were only allowed to stay forty days, and had to reside with "hosts"

responsible for them. Later, however, he granted further privileges. The Florentines were an important body; the Bardi did financial business, but they were ruined when Edward refused to pay his debts.

6. The London Companies

All classes of Londoners had a special position. In the fourteenth century any person who had been apprenticed for seven years to a trade was entitled to practise that or any other trade; thus the structure of the craft gilds was affected. If merchant gilds did exist, they developed into an organisation which was possibly peculiar to London. There were several important differences between the London Livery Companies and the merchant gilds. The Livery Company, for example, exercised much greater influence, and at the same time it restricted its activities to one trade. On the other hand, unlike the craft gild, the Livery Company did not regulate production, at any rate directly; its special interest was in the marketing of the product, and the degree of control exercised by the Company over the craft as a whole varied considerably from case to case.

These later Merchant Companies completed the system. The sale of all commodities in London was governed by their regulations, articles of foreign commerce especially. Twelve of these companies became very rich and developed an organisation which dominated the civic and political life of the city for centuries. The Grocers' Company, which became predominant at the end of the fifteenth century originated in 1345, and the Mercers' Company of which the Merchant Adventurers is supposed to have been an off-shoot, was founded about the same time. Towards the end of the century the Grocers gave birth to the Apothecaries' Company, and the Mercers to the Haberdashers (aver d'acies).

The Vintners' Company was formed in 1364, and was

followed some years later by the Drapers and Fishmongers. Other famous Companies were the Goldsmiths, and the Leathersellers. Lesser Livery Companies also developed, but only the great twelve were of special importance. Each trade had its peculiar dress, hence the name.

The Companies received a severe blow from the confiscations of Henry VIII., who held that they had outlived their usefulness like the monasteries. Only the richest recovered from the confiscation. These have persisted down to the present time, and their funds are partly used for educational and similar purposes.

The class system was strongly marked. The great merchants formed a real aristocracy; the Lord Mayor ranked with noblemen. Yet the term " merchant " is a wide one; it included also the interlopers obtaining a bare living. The business of the Companies was managed by a powerful minority, often at variance with the ruling powers of the city. Friction existed between the craftsmen and merchants, while foreigners were never recognised until they had lived in London for some time and had joined a gild. The Peasants' Revolt found great sympathy in London. This points to ill-feeling between the lower classes and the gildsmen. About 1400 of the journeymen began to hold together against the master craftsmen.

7. The Fifteenth Century

London suffered from the weakness of Richard II. The citizens supported Henry IV., while the French victories of his son brought trade to England. In the fifteenth century London began to be a centre of cloth manufacture; hitherto it had obtained English supplies from outside. The progress was precarious; the citizens felt the reaction and hastened the deposition of Henry VI.

Edward IV., with all his faults, was a strong king and understood commercial matters. He not only gave security to the trade, but guided it by regulative laws. After a

THE MALL IN 1450.

brief interval there came Henry VII., who, though hated for his exactions, preserved order. His avarice, however, stifled enterprise; a rich merchant was a marked man.

8. The Tudors

Henry VIII. was popular in London until he proposed to ruin the gilds. His attack on the monasteries was welcomed. Debasement of the coinage provided a lucrative calling for merchants dealing in the exchanges; others were seriously affected. Under Henry's successor Protestant immigrants came here from the Continent; a law was passed permitting them to follow their crafts. The movement was discontinued under Mary, but began again in the next reign.

London shared fully in the general prosperity under Elizabeth. With its command of Continental markets, partly natural and partly monopolistic, and with its facilities for obtaining raw materials, London had no English rival. Weaving was gradually becoming more localised here, partly because London's position directly stimulated craftsmanship and partly because of a positive exodus from the country. Then, as now, London retained its foremost position because of the infusion of the best country blood. It had thriven in the fifteenth and sixteenth centuries when other towns were decaying.

Serious results followed in the sixteenth and seventeenth centuries. Population increased rapidly, and the phenomenon caused surprise and alarm. Trade was gradually altering its character, and the old methods of regulation, suitable to a smaller population, were of little use. Further, the livery companies who governed before the seventeenth century were weakened. Suburbs, *e.g.* Spitalfields, grew up outside the control of the city authorities, while settlements occurred between the cities of London and Westminster.

A larger freedom and a greater population stimulated

enterprise, and the Levant Company (1581), by its successful rivalry with Italian merchants, dealt a blow at Southampton, and made London its headquarters. It traded as far as India. The Muscovy Company soon contained merchants rich by their dealings with Russia. The position of the Hanse merchants in the Steelyard had been gradually undermined; their privileges were lost in 1578. London merchants had gained ground from their foreign rivals in the Continental trade. The lower classes shared in the general prosperity, while the craftsmen found an increasing market for their goods as trade extended.

The Protestant immigrants from the Continent were badly received by our own craftsmen. There was much sympathy for them, but they were generally very poor, and chargeable on their parish if they settled. Further, the craftsmen disliked their competition. The Livery Companies, which had been gradually decaying, came into temporary prominence by leading the organised opposition to the foreigners.

9. Finance

With the decline of Venice and Genoa, London obtained a new importance as a depôt. Many foreign merchants sent their goods to London, to be forwarded thence to their destination. The manufactures were improved by the immigrants driven from the Netherlands by Alva. The latter sacked Antwerp, then the world's money centre. Most of the business went to Amsterdam; some came to London, which now developed in a new direction. The place of the Bardi under Edward III. was taken by the Hanse under Edward VI. and Mary. Elizabeth obtained her loans in Antwerp.

The Goldsmiths' Company was represented in earlier times by individual craftsmen; their business presumably was plate-making, but now they began our banking system. London became the English centre for money,

and could arrange loans with other States. The merchants received a great blow when Charles I. confiscated the deposits in the Tower, while Charles II. ruined many bankers by closing the Exchequer in 1672. The peculiar position of London was intensified by the establishment of the Bank of England. The presence of financial ability among administrators had been shown by the successful re-coinage of Elizabeth.

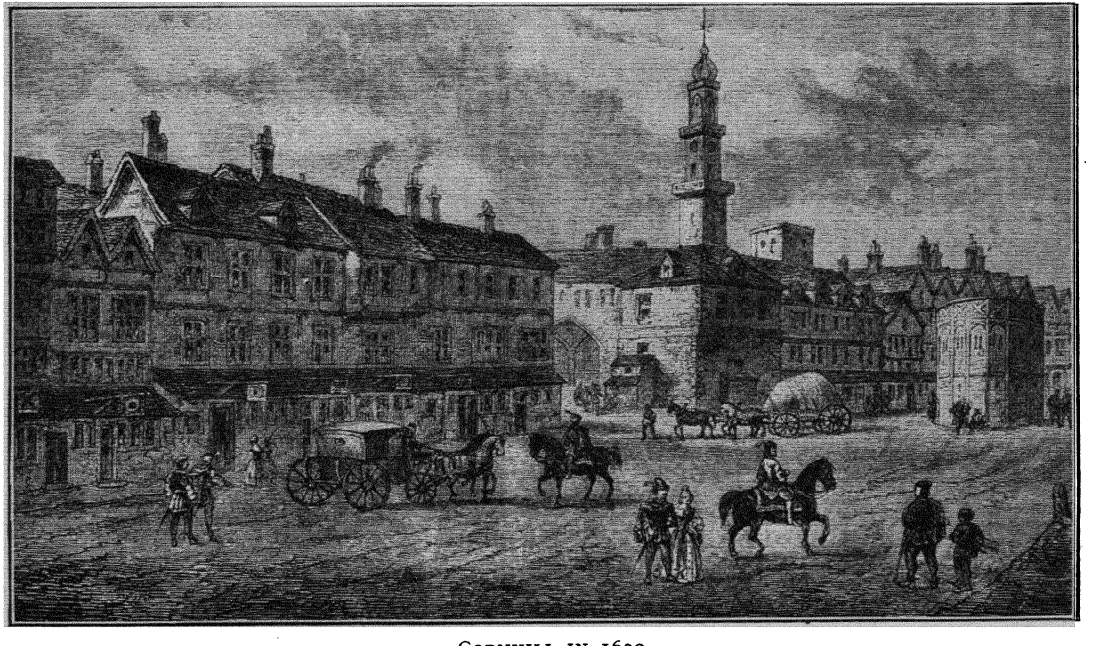
The Bank successfully negotiated crises in 1768 and 1783, though sometimes, as in 1792, it was powerless. Its monopoly of joint-stock banking gave it an artificial position, not possessed *e.g.* by any bank in Scotland. When it had proved its caution, it retained its power even when competition was free. Thus in the nineteenth century, when the trade of London was becoming relatively less important, it became the financial centre of the world, a position it still holds, though rivals like New York and Berlin are pressing close.

10. The Growth of London

The questions raised by the sudden growth of London became more insistent under James I., who was not competent to deal with them. Jealousy of the suburbs led to an attempt to prohibit building in them. It was found impracticable to place them under the control of the Crown. Overcrowding in the city itself naturally followed. The sanitary conditions were unspeakable. The water supply was deficient; fuel was hard to obtain, though a large trade in sea-borne coal with Newcastle existed; this was at least as old as Edward I. The food supply was precarious, even in normal times. Fires were still frequent. Much of the population lived in misery.

Charles I. passed new building laws. Houses were in future to be built of stone.

Foreign merchants amassed wealth under the early Stuarts in spite of opposition. Cromwell wanted a Jewish



CORNHILL IN 1630.
From an old Print.

immigration, so that his financial business might be effectively managed; moreover the Puritans had strong Old Testament leanings. Many Jews of Spanish and Portuguese origin came here from Holland, where they had been settled after their expulsion from Spain near the end of the fifteenth century, driven by the Inquisition. In 1685 the Revocation of the Edict of Nantes drove the Huguenots to this country. The silk industry they started at Spitalfields has lasted till the present. Naturally it was less bound by restrictive regulations than in the old centres. When capitalism arrived, many employers came here to give scope to their enterprise.

11. The Huguenots

The Huguenots were welcomed. They were Protestants, they had been cruelly treated, and they brought useful arts. The old intolerant class spirit in craftsmanship was breaking down. There was no longer that intimate connection between city government and trade organisers. Further, the Huguenots possessed popular sympathy. Unlike their predecessors from Flanders, they did not form scattered communities through the country (*e.g.* at Tuckingmill in South Wales, Cornwall, etc.), but concentrated chiefly in London, probably to the displeasure of the authorities Practically every London craft was improved. New methods were introduced, and finer materials, not necessarily of more solid quality, were made. The Huguenot influence was gradually diffused, and had an effect on English industry which probably has not yet ceased.

12. The Great Plague and the Great Fire

This beneficial immigration was preceded by two great calamities. The Great Plague of 1665 was possibly of local origin. The insanitary conditions favoured its rapid growth. A seventh of the whole population of London was swept away. It was followed in the next year by the

Great Fire. The reforms of Charles I. had come too late to improve the whole city. The wooden houses burnt easily.

The immediate effect was terrible. Yet London was purified. The worst houses were swept away; rebuilding in stone or brick was necessary, and was carried out under more sanitary conditions. No difference was made to the permanent prosperity of the city. It was, however, rebuilt according to the old plans, and against the advice of Wren. Charles II., with all his personal popularity, was disliked in London, not only for his robbery, but because he took away the city's charter and himself appointed a Lord Mayor. The policy was continued by James II., so that William III. was welcomed by the Londoners.

The King, being dependent on the Whig merchants, closely connected himself with his capital. The charter was restored. The connection was still closer when the Bank was founded. The Hanoverian kings, except George III., had little influence on the city. In the nineteenth century the influence of the sovereign was almost exclusively social.

13. The Industrial Revolution

The Industrial Revolution affected the position of London in various ways. The introduction of steam-power concentrated industry on the coalfields of the Midlands and the North, and these districts gained in importance at the expense of the South. London had been the port for East Anglia and the Home Counties, which required more raw materials than they could produce. Hence the shifting of population had at first an adverse effect on London as a port.

During the nineteenth century shipbuilding and the heavy iron industries left the Thames for the Tyne and Clyde, though with the gradual improvement in communications, the balance has been redressed a little since

1900. On the other hand, furniture-making, and luxury trades, varying from pianos to jewellery, have gained in importance, and clothing of the cheaper sort gained a foothold in London on account of the immense amount of low-priced labour there.

It is easy to generalise inaccurately on London's industries and to exaggerate the supposed adverse effects of the Industrial Revolution. London is still the greatest manufacturing city and port in the Empire, although high rents due to shortage of ground space have driven industry from the city proper, outwards to the suburbs. Industrial businesses like banking concerns tend to establish their headquarters in London, and to-day there are few firms of front-rank importance without a city office. The population of the city itself has thus become clerical and administrative instead of industrial in the narrow sense.

14. The Structure of London

The term "London" is exceedingly vague. The city and the adjoining city of Westminster are swallowed up in the County of London, and the suburbs lie outside these again. London can only be considered a great port if the whole river from Teddington to Tilbury is considered. As the size of ships increased in the nineteenth century they could not reach London, and docks were made lower down. Thames towns like Woowich and Gravesend began to lose their individuality; the business of the lower ports was centred in the city. As Tilbury was thus connected with London, goods from the world over could reach the city, which thus became a distributing centre for the whole country, though its influence on the North was small. The industrial regions, possessing wares in large quantities, could effectively control sales, so that goods were increasingly shipped directly from Liverpool and the North Sea ports.

The result was that London's imports rapidly increased

while the exports did not. In 1914 the former were double the value of the latter. On the whole, London's commerce has not kept pace with its growth of population.

The rich nobles were rivalled by the merchants. The manufacturers followed. To-day London's richest men are financiers. Because the Bank is practically the sole

LONDON BRIDGE.

From a Print dated 1796.

holder of England's reserve, all the tremendous increase in banking and insurance necessitated by the growth of industry in the North and elsewhere has centred in London. Commerce did increase absolutely, and this again increased the demand for those who could manage money matters.

As London coalesced, the unity of the city was lost, and the place was a world in itself. A peculiar specialisation occurred, similar to that in the whole country.

Manufactures developed in the north and east of London. Financial and merchant business grew up in the old city, near the old landing-places. The government had long been at Westminster. The residential portions lay on the windward side of the town. The poorer classes were confined chiefly to the north and east. The middle classes followed the example of the aristocrats: they left the city and lived in a ring of suburbs.

The old exclusive Company system left its mark in a very well-defined classification of inhabitants. The " outsider " became the East End employee, while the superior craftsmen are to-day represented by a great army of clerks. The whole system of London life, excluding the slums, is peculiarly efficient for the purpose to be served. A long mercantile tradition had created a class suitable for mechanical clerical work, requiring less enterprise than conscientiousness. The same qualities were required in mercantile as in financial offices. Arrivals from the country were soon drawn into the system. London can now face any ordinary financial demand with equanimity; the reason is that a system of incredible delicacy has been created as English finance has slowly developed; the mistakes of the past have been remedied in large measure.

15. The Relation of London to the Country

In the time of Charles I. fears were expressed that the head was too big for the body. The last century saw an immense increase of the population of London, though that of the City itself diminished later. The natural increase was negative; families soon died out. Growth was wholly due to immigration from the country, largely from the southern agricultural districts. Even so, the task of the management of England's life was too great. The Industrial North began to follow Scotland's example, and to develop a civilisation showing a political, social, and moral divergence from the culture of London.

London is still far ahead of any single British city in importance, but its position is more precarious than in the nineteenth century. Its industry may tend to decline; as regards commerce, other ports are advancing rapidly. Most important of all, London's financial supremacy is being challenged abroad. Its future depends on world movements.

SCOTLAND AFTER 1760

1. The Industrial Revolution

The Industrial Revolution caused a movement and increase of population in Scotland, as in England, largely dependent on the distribution of coal. The coalfields are situated near Ayr, in the lower Clyde valley in Lanarkshire, in Midlothian near Edinburgh, and on the South Fifeshire coast.

On the first coalfield Kilmarnock obtained a new importance in the nineteenth century as an engineering centre. The Clyde valley exported its products by Glasgow. This town dated from the sixth century. It had splendid means of communication down the Clyde estuary, up the valley, across the narrow plain to Edinburgh, and to the Highlands past Loch Lomond. Thus the manufactures of Lanarkshire could be easily shipped to western British ports or sent to the East Coast. Hence its growth was very rapid. Paisley, Renfrew, and Dumbarton shared in its prosperity.

Edinburgh was faced with ruin after the Union. After 1760 it was far outstripped by its great rival, but it regained some of its importance. The clear Midlothian streams had been used since 1675 for paper-making, and the near presence of coal added to the prosperity. Edinburgh became an important printing and publishing centre. Its beauty and social attractions made it a fine residential town. The want of solid progress, however, was seen in the poverty of a large section of the people.

The old strategic points, *e.g.* Dumbarton, Stirling, Perth, and Aberdeen, became route towns, and in the days of railways developed into railway centres. The Highlands and the North-East were little affected, except that the drain to the towns began to make the depopulation of the former a serious matter. Fishing towns, Banff and Wick, retained their local importance. Inverness, the capital of the Highlands because of its command of routes, retained an importance out of proportion to its size. Agriculture was favourably influenced. Scotland was farther from foreign sources of supply than London or Liverpool. Again, oatmeal was a staple Scotch food, and oats grew in Scotland to perfection. Cultivation became more intensive in the Lowlands; the Highland crofters had always worked hard for a bare sustenance, and there was no possibility of their supplying the new demand. Strathmore, near the mouth of the Tay, was the most fertile part of the Lowlands, and its products were partly the basis of Dundee's growing manufactures.

Glasgow made direct communication with America and elsewhere as industry developed. The neighbouring coalfield made engineering possible; the Clyde rivalled the Tyne and finally outstripped the Thames as a shipbuilding centre. Cotton manufacture in all its forms developed in the eighteenth century. An English firm started the industry at Rothesay in 1779. The concern was bought by David Dale, who afterwards began the New Lanark business with which Owen was associated later. Though progress in Lanarkshire was rapid, it was not so phenomenal as in Lancashire. The Carron iron works, opened in 1760, partly supplied this district. In the last half-century the oil shale industry developed, especially round Edinburgh.

2. Linen

The linen industry was long settled. Goods were exported to England by 1600. In 1684 a petition was

presented to the Privy Council asking for the removal of restrictions; it was stated that there were 12,000 operatives in Scotland. The petition was granted, and the industry flourished. In 1686 the Scotch Parliament passed a law that the bodies of all except the poorest should be buried in home-made linen. This law was repealed seven years later. Export of linen goods was prohibited, while the import of raw material was encouraged.

After the Union, money was granted to improve industrial arts, and the linen manufacture was well assisted. The growth of flax was directly encouraged, and support was given to schools which taught the art of manufacture. In 1727 the Board of Manufactures was founded, and this stimulated the industry in Dundee, Dunfermline, and other towns in or near Fifeshire. When industrialism developed, the necessary coal was at hand. Dundee developed similar industries to linen, *e.g.* hemp and jute, while oilcloth, etc., began to be made in Fife, nearer Edinburgh.

In the early eighteenth century French cambric weavers had been attracted from Picardy to Edinburgh, while Dutch craftsmen came to Glasgow. Industries spread from the capital westwards and northwards. The Huguenots, as in England, practised many trades, and they easily passed from silk manufacture to that of linen. The British Linen Company had at first an industrial side; this industry more than others was stimulated by banking facilities. From 1730 to 1750 the production doubled. After 1753 a grant to assist local production in the Highlands was very successful. However, the linen manufacture has not developed as much as other textiles, though it has not so utterly disappeared as in England.

3. Woollens

A company of wool weavers received a charter as early as 1475, but commerce was in the hands of foreigners till

1600. Only coarse cloth was woven and used in Scotland. In 1601 seven Flemings settled at Edinburgh, and in 1681 an English company obtained a charter at Haddington. There was little progress till machinery was used. Teazles were practically essential to remove burs from the wool. These were largely grown in Yorkshire, but not in Scotland. Further, an agitation by Elizabethan merchants led to a proclamation by James I. against export of wool from England. Parliament pursued the same policy at the Restoration and Revolution. English weavers were also protected against Scotch competition.

The later development of the wool industry was thoroughly healthy. The steep southern fells, though almost uninhabitable, provided a great supply of the famous Cheviot wool. The Tweed provided an effective means of communication to the sea, whence there was an easy route to England. Direct routes from the main valley to Edinburgh and over the border were difficult, but not impossible. Many small rivers provided a pure water and a source of power, while their sheltered valleys were habitable. Building stone was abundant; the moist valleys favoured cattle pasturage, while agriculture was possible.

Coal and iron were here absent. Before railways they were unnecessary, afterwards they could be brought if required. The conditions of a mushroom growth were wanting, but a sane, if slow, development was possible. The local market was very limited. In England, and even in Lanarkshire, West Riding competition had to be met. It was hopeless to attempt to beat the rival manufacturers. Hence the Tweed valley employers followed the example of their Cotswold representatives. They were handicapped by the working of the law of increasing return; their one chance was to make an article which did not conform to it.

The West Riding employers, at least after the use of steam was general, could fully use their advantages only

by extending their sale, and thus cheapening their goods. The best machines could not make the highest quality of woollens; labour and machinery were both to be considered. In England there was a small demand for high quality woollens at whatever cost. Labour was relatively cheap in South Scotland, and in any case it could partly atone for the absence of steam power. Hence this district supplied a gradually increasing demand for a new species of cloth, *i.e.* tweed. The Cheviot district developed in a similar way.

Hawick and Galashiels are creations of last century, and are still small places. Yet they are efficient manufacturing towns, and not only supply the home market but also produce for export. There was a tendency for manufacture to grow up in still smaller places, especially if steam power was not used. Hence production increased rather by multiplication of centres than by the growth of a single town. The effect was that operatives were not massed together, so that a certain individuality developed. The towns are still surrounded by pasture or moorland; no proletariat out of contact with Nature has developed. The result is a kind of eighteenth-century survival, as in the Cotswolds, but the advantages of progress have been gained with a minimum of ill-effect.

The wool industry in Scotland, however, is still on a small scale, and the Highland manufacture is even less in total production. Here is a parallel to England before the Industrial Revolution. The people in the Orkneys, Shetlands, the Hebrides, and parts of the mainland have always lived by fishing and on the products of farming on a sterile soil. A bare subsistence is hardly thus obtained; thus a rough woollen cloth of high quality is manufactured in leisure time. The effect of this in the last century was to place some small check on the extensive migration. Such an industry made for stability; labour was cheap, and the raw materials could be worked up at home.

4. The Highland Crofters

Where the clansmen had thus many employments they were not unhappy. Often they were in the hands of grasping landlords, who raised the rent on the basis of improvements made by the crofter. In the eighteenth century the new movement began when the landlords wished to turn the land over to sheep pasture. Labourers were ruthlessly dismissed, and where the crofters had some moral right they were later evicted by force. The labour bill was cut down and the landlords used up the accumulated wealth of the soil, which gradually deteriorated.

The Lowlands also could easily absorb all superfluous labour and the colonies attracted settlers. Hence began the depopulation of the Highlands. Large tracts of country were given over to deer forests. Infertile as was the soil, there was a poor population loth to leave it and willing to expend its energies on improvement. Thus the migration was attended with great suffering. The movement continued through the last century; some relief was obtained by the Crofters' Act of 1886; fair rents were settled by a Commission.

In the early nineteenth century the condition of the Galashiels weavers was satisfactory. Wages were relatively high and trade was good. In Glasgow, on the other hand, the masses existed in misery. The general development there was the same as in England during the transition period, and although there was a gradual improvement during the course of the century there is still much poverty in the larger towns.

The exodus of Scotchmen has continued in the twentieth century, but that has been partly balanced by an influx of agricultural labourers from Ireland into the manufacturing districts of the south-west Lowlands.

However, it may be found at some future date that the water power and forestry possibilities of the Highlands may repopulate this district to some extent.

IRELAND

1. Introduction

English policy in Ireland from the invasion of Henry II. down to the Restoration of 1660 may be summarised by the single word Anglicisation; but the obstinate resistance of the Irish to the introduction of English institutions caused a change of policy, and from the accession of Charles II. down to the Union of the two Parliaments in 1801, the primary object of English statesmen was to render Ireland so feeble economically that she could offer no effective competition to English industries. The Act of 1801, however, rendered impossible a continuation of this policy, and during the greater part of the nineteenth century no special distinction was made between the two countries.

From 1760 to 1820 the population of Ireland grew very rapidly, and from 1820 onwards a constant stream of Irish immigrants flowed into Lancashire and the West of Scotland.

2. Agriculture

During the Napoleonic Wars corn production received an artificial stimulus in Ireland as in England. After the war when the temporary market in the Spanish Peninsula collapsed, Irish agriculture experienced a crisis similar to that in England.

During the first half of the nineteenth century the English movement towards the large farm was reproduced in Ireland. This was made easy by the fact that during the period a large amount of Irish land passed through the Bankruptcy Court, and obstacles to transfer were removed by the passing of the Encumbered Estates Act of 1848.

The landlords had great powers. They could eject their tenants without cause, they could raise rents as it pleased them, while leases were generally short, when they existed. They could distrain on the tenant's goods if the excessive rent demanded were not paid. Matters were complicated

by the tithe charges. Sometimes the landlord took all except a bare subsistence minimum; if there were a more profitable tenant forthcoming, there was no mercy. Landlords, Catholic and Protestant, were often absentees, and their powers were then delegated to the agent, who had no interest in the country.

The nineteenth century is largely a succession of land troubles. At Westminster there was little sympathy with Ireland; in the landowning House of Lords there was none. London was far away; the troubles were thought to be exaggerated. When the Irish complained, they were looked on as rebels. The Protestant landowners retained much of their old power in the English Parliament; they were directly interested in the Irish questions, whilst their opponents had no voice.

About 1830 there were some attempts to pass Land Reform Bills, but these were all rejected. Coercion Acts were passed, but though a peace might follow, the root question was untouched. The natural result was a growth of secret societies. The peasants had only one weapon left, *i.e.* assassination, and this was used; rebellion was hopeless. Unpopular landlords (if resident) and agents paid the penalty. These societies were feared; anyone known to be a member was liable to death or imprisonment. Yet the disaffection still remained; it was merely driven underground.

The misery of the population was very great. Half a million families in 1840 lived in one-roomed mud houses.

The Devon Commission Report on the subject (1845) was unfair to the peasants, but worse was to come. The cheapening of the staple food of a country is always dangerous, because there is no reserve food to fall back upon. After the introduction of the potato by Raleigh some time elapsed before it overcame its unpopularity. Arthur Young, however, observed at the end of the eighteenth century that potatoes and milk was the staple

diet. The crop was ruined in 1740 by frost, and in 1821 and 1822 by floods, but help came from England and elsewhere at the latter date. The gravity of the situation was increased by the fact that in Ireland the population had increased until it was at subsistence level.

3. The Potato Famine

In September 1845 the potato blight appeared in Wexford. It had previously spoilt the crops in Germany and Canada. Half the crop was ruined. In the next year practically the whole crop was destroyed. Apparently sound potatoes which had been selected and buried were found to be infected. The results were appalling. Thousands died on the roadsides; whole districts were practically depopulated. The magnitude of the calamity was not appreciated in England; help was too grudging and came too late. There was much private benevolence; the United States, already largely peopled by Irishmen, gave much help. Outrages naturally followed distress.

Emigration had been important since about 1830, and it now suddenly increased. All who could leave the country did so. Unfortunately it was the young and strong, and those who were not quite destitute, who left. The ranks were further thinned by evictions. The agents were pitiless. If the land would be more profitable when put under pasture, grazing displaced agriculture and the tenant had to go. His house was often burnt over his head, and he was cast adrift in the open. During the whole period from 1850 to 1870 both causes of depopulation continued.

Fenianism grew up in the early sixties. It was anti-English and its methods were questionable. Though it was a direct result of miseries which should have been prevented, England had to suppress it; this was not done till 1867. Bright pleaded the cause of Ireland; once Fenianism was crushed, England was ready to understand

how cruelly we had treated the country. Gladstone saw the necessity of reform. He passed his first Land Act in 1870; non-payment of rent was made the only legal ground for eviction. The Act was not a real success.

4. Home Rule

The Home Rule League began in 1872, but Gladstone was strongly opposed to separation. Bad seasons in the years 1877 to 1879 led to more evictions, and the new discontent was voiced in the Land League, in which Michael Davitt and Parnell worked together after 1879. They advised Irish tenants to unite to refuse to pay exorbitant rents or to be evicted. Their most powerful weapon was the " boycott "; the name was derived from an agent of that name, who was severely left alone and was refused all assistance. Parnell introduced the obstruction method into Parliament.

The Irish depression of 1878 was largely a result of the English free trade policy. Before 1842, when the English import duties on foreign foodstuffs began to disappear, Ireland had supplied England with young cattle and dairy produce. After 1846 Ireland's best market was thus thrown open to world competition, and by 1880, when improved transport allowed America to deluge Britain with cheap foodstuffs, Irish agriculture was ruined.

In 1881 Gladstone's new Land Act granted fixity of tenure, free sale, and fair rents to the peasantry. On the demand of either landlord or tenant, the Land Commission was empowered to fix the rent for a term of 15 years. This was a notable departure from the principles of *laissez-faire*, but the Ricardian theory that in a progressive civilisation all surplus above subsistence must fall to the landlord appeared to apply with peculiar force to Ireland. The power of the landowner to extort rack-rents was limited in England by the fact that the farmer had alternative occupations in innumerable industries. In Ireland it

was agriculture or emigration; hence the peasant farmer had a special claim to State assistance.

During the thirty years following Gladstone's Act the Land Commission effected a considerable reduction in Irish rents, but the system, by setting a premium on bad farming in order to get a reduction of rent did not improve relations between the two opposed parties.

An attempt to solve the problem by the elimination of the landlord was made in 1885 when the Ashbourne Act provided five millions of public money to enable the peasant to purchase his farm. The money advanced was to be repaid in annual instalments extending over a period of 49 years. Two years previous to this the Labourers' Act made it possible to house the poorer classes and grant them an acre of land.

Gladstone, who had become in 1886 a convert to Home Rule, was defeated at the polls, but the Conservatives passed useful Land Acts in 1891 and particularly in 1896. Balfour provided money for land purchase on a much more extensive scale, but by 1900 the landlords were refusing to sell, owing to the fact that the stock in which they were paid was falling in value. The threatened deadlock was broken, after a conference of landlords and tenants, by Wyndham's Land Purchase Act of 1903. Under this new scheme the landlord received cash payment and a premium above the selling price, with the net result that estates came on the market, and were broken into peasant holdings between 1903 and the European war.

Land purchase alone, however comprehensive, was inadequate to solve the problem. Small farmers needed assistance to counteract the peculiar disadvantages of small farms. The first foundations of an Irish Co-operative movement were laid by Plunkett in 1889. A hopeful development began in 1894 at Doneraile, in County Cork, where a Co-operative Credit Association on the lines of the German Raiffeisen Banks was instituted. In 1901 there

were over a hundred such rural banks in Ireland. Farmers combined their savings so that money could be lent, but this was only done for productive purposes, and the liability was unlimited. Hence the banks were instituted on sound lines; they stimulated saving and they are revolutionising Irish agriculture. The moral effect is all to the good.

In 1899 the Board of Agriculture and Technical Education for Ireland was instituted, with the aim of developing industry on scientific lines.

The special problem of the very poor West of Ireland districts was first tackled by Balfour in 1891, when he established the Congested Districts Board for the purpose of improving agricultural methods, and the planting of by-industries such as lace- and carpet-making. In 1904 its functions with respect to farming were handed over to the Board of Agriculture, and its efforts to raise the standard of life of the peasantry of the West appear to have been very successful.

Home Rule again became a vital question even before the War of 1914. The agitation now, however, took up the sharper weapons of civil war, but with the events which culminated in the Irish Free State Act of 1923 this book has no concern. It is already clear that the division of Ireland into the separate governments of Ulster and the Free State is seriously affecting the industry of the former; and that the new "Dominion" is achieving its task of economic reconstruction with some success, while schemes like the Shannon electric power development promise well for the future.

CHAPTER XVI

THE WAR (1914–1919) AND AFTER

1. The Effects of the War

One effect of the War was a great and rapid extension of Government control over the economic life of the nation. In 1916, the Ministry of Labour was created to take over control of war industries, and to regulate work, wages, profits, and output in the national interest. The Government took over the complete management of the railways, shipping, mines, and munition factories, and to some extent controlled agriculture; in 1917 an Agricultural Minimum Wage Act was passed. To meet the demand for labour the Government persuaded the trade unions to suspend their regulations, and to agree to " dilution," that is to say, to allow unskilled labourers and " outsiders " to perform tasks previously done by skilled union men.

The forces of free competition were checked in various ways. In order to divert factors of production into war channels, some manufactures were prohibited, and the raw materials of others were rationed; indeed, almost every industry became subject to State regulation. Exports and imports were regulated, and the free movement of capital was limited by the prohibition of the export of capital and by Treasury control of new issues. Where State control of a form of production or a service caused a loss, the deficit was made good by a State subsidy, and surplus profits arising from the circumstances of the War were limited by an Excess Profits Tax.

War conditions profoundly affected wages. As the forces of competition were largely suspended a great deal

of labour was paid for on a cost of living basis, and one important result of this was that the wages of unskilled men rose relatively to those of the skilled workers. Financially, the working classes were better off than ever they had been before, as wives and children were able to earn high wages in the munition factories.

Steps were taken early to protect the food supplies. The export of all foodstuffs was prohibited, and the Government itself purchased large supplies from abroad. Food production, and food prices committees were set up, and in 1917 a Food Controller was appointed to regulate the supply and consumption of food. This was followed by a Rationing Order; all important foods were rationed, and owing to the shortage of fuel, the domestic consumption of coal and light was severely restricted.

Towards the end of the War years a Ministry of Reconstruction was established to cope with the problems that were expected to follow the cessation of hostilities, and to devise ways and means of restoring the economic life of the nation to its normal channels.

2. Currency Changes. Rise in Prices. Inflation

At the beginning of the War, the Government raised the Bank Rate to 10 per cent., and declared a moratorium for certain kinds of debt. A comparatively small number of banknotes in excess of the legal amount was issued, the Bank Act of 1844 being suspended for the fourth time in seventy years. More important was the issue of Treasury notes by the Government itself, in denominations of 10s. and £1. These gradually displaced our gold coinage, which disappeared from circulation. The Government obtained most of this gold, though a little was hoarded.

The gold was needed to pay for our purchases abroad, for the value of a Treasury note outside Britain fell in time below that of a golden sovereign. In theory, the Treasury notes were convertible into gold, but in practice

men were not allowed to obtain gold in this way and then export it. If the number of these notes in the country had been the same as the number of sovereigns before their issue, a note would have been worth its face value, but over-issue took place, and depreciation inevitably resulted.

The gold currency was practically a national hoard, ready to be used for war purposes, just like the war chest of former times; when it was used up we were not essentially poorer, for we had found an economical substitute for a luxury. The expenses of the war, however, still continued, and the Government would not, or could not, obtain sufficient resources by immediate taxation alone. Borrowing had to be resorted to, and we became indebted both at home and abroad, chiefly to U.S.A. Thus the necessary payments were met by printing Treasury notes to an increasing extent, and also by an immense increase of bank credits. That is, our currency was directly and indirectly inflated.

Inflation also took place in all the belligerent countries, but, on the Continent the printing of new notes was more important than here. The result was a general rise of prices. In each belligerent country, the gold currency was exported to pay for munitions or raw materials, for the neutrals were loth to accept notes when there was a practical certainty that inflation would diminish their value. The exchanges moved against those countries that had inflated.

The rise in prices was, however, world-wide. The reason was that the neutral countries became choked with the gold that had been sent from the debtor States. The value of gold, *e.g.* in U.S.A., fell, and prices measured in gold rose. When we bought American corn, the owners demanded a higher gold price for it than before, and the apparent price in England was further increased because the Americans refused to receive our Treasury notes at

face value. The value of banknotes also fell in sympathy; even if gold could have been obtained by a dealer in exchange for notes without exciting suspicion, he would not have been permitted to export it in the ordinary course of trade. In effect, the Government exacted a tax on all persons who possessed sovereigns or had a claim to them.

Inflation continued through the War, and for a year or two afterwards; in England the tide began to turn about 1921. The fact that the American exchange was so heavily against us was masked for a time by the "pegging" of the exchanges, but when they were free to adjust themselves to real conditions, it was apparent to all how heavily our currency was depreciated. Subsequently, there was slow deflation in this country. The number of Treasury notes was gradually decreased, while at the same time there was a determined and successful effort to lessen the amount of our indebtedness by means of heavy taxation. Thus the years 1921 to 1926 saw, on the whole, a gradual fall in prices.

On the Continent, inflation was carried to much greater lengths. In Germany, notes were printed so quickly after the War that their value decreased from day to day until they were worth just the value of the paper on which they were printed. In this way, the Government in effect repudiated its internal debts. In Russia also, the paper currency became valueless. In both these countries new stable currencies which have retained their face value have since come into being.

3. War Debts and Indemnities

During the War, England lent vast sums of money to our allies, and we in turn were obliged to borrow from the United States; our credit was so much better than that of our Continental allies that America would not lend them all the money they required unless the loans were backed

by us. At the end of the War the victor States hoped to receive the whole cost of the struggle from Germany and her allies, but it soon became obvious that this was impossible. England would have been satisfied with a reasonable sum from Germany, but some of our allies preferred the other plan of demanding an indefinite amount and obtaining as much as possible year by year. With this object the Ruhr was invaded (Jan. 1923), but the occupation did not fulfil the expectation of French taxpayers, and was at length ended (1924).

The failure to obtain huge indemnities by force made it plain that the divergence of views between the allies must be quickly resolved. France and Belgium claimed that their devastated territories gave them a privileged position in their demand for indemnities, while England, with its large unemployed population, would have preferred a small certain payment to a rapacious demand which would be certain to intensify the spirit of hatred and, even if it brought payment, would bring it in the shape of foreign goods which would aggravate the already serious conditions of unemployment.

At the Spa Conference (July 1920), an agreement had been made to allot certain percentages to each of the victor States of any indemnities obtained from Germany, while Belgium and then France obtained a certain priority. Under the Dawes scheme (presented April 1924), an attempt was made to obtain a definite, reasonable amount of money, as much as could be obtained without crippling Germany's economic life in such a way as to lessen her future capacity for payment.

The world depression which began about 1929 settled the question of indemnities and probably that of inter-allied debts. Germany ceased her payments in 1932, and they are not likely to be resumed. England also ceased her payments of her war debt to America, and that has caused some anti-British feeling in the States.

4. Depreciating Currencies

Another consequence of the War was the depreciation of the currencies of most of the important countries; the foreign exchange rates fluctuated so violently that external trade was rendered very difficult for many countries. This was caused partly by so many countries inflating their currencies, and partly by the problems arising from the payments of war debts and reparations. Take, for example, the case of Germany. The depreciating mark was worth much more within Germany than it was outside. To the Germans it was their one and only method of internal payment, so that it obtained a kind of conventional value. To outsiders, however, the mark was merely a bit of paper; its only value was due to the fact that it could buy goods in Germany. Thus the external value of the mark fell below the internal value. Now those German goods in the manufacture of which labour was most important, relatively to imported raw materials, were made by labour paid for in marks, which had a conventional value (just as our copper coins are worth to us much more than their metal content). In other words, German labour may have been fairly well paid when payment was measured in marks which could buy other German-made goods at comparative rates, but these marks could buy only a relatively small amount of imported goods, because the (*e.g.* English) exporter required to be paid in English money, and to him marks were less valuable than to the German. English traders could buy German goods to great advantage, for they could buy many marks for a pound note, and the marks thus bought had a considerable value within Germany. On the other hand, an English exporter found it difficult to send goods to Germany, for he was paid in marks which meant a great sacrifice to the German buyer, but were of small value when exchanged into pound notes.

In this way the markets in those countries which had depreciating currencies were almost closed to our goods, while the goods of those countries could compete on unequal terms with our more expensively produced wares even in our own land. Our export trade received a severe blow from which it has never really recovered.

Currency depreciation and fluctuating exchanges led to a new form of speculation practically unknown in pre-War days—foreign exchange speculation. Large numbers of people speculated in foreign currencies in the hope of profiting by changes in their value, a factor which had serious reactions on the foreign exchanges. Some countries too, deliberately manipulated their currencies in order to keep the external value below the value at home. This had the effect of stimulating exports, without at the same time encouraging imports. Japan's post-War gains in our former Eastern markets has been assisted by currency under-valuation to a much greater extent than by the low wages paid to the Japanese workers.

The ultimate result of the problems arising from the currency disorders of the early post-War years has been the elaborate systems of exchange control now practised in so many countries, and which competent authorities blame for the marked decline of international trade since 1930. The immediate result, however, was the attempt made in most countries to stabilise their currency. In 1925, England returned to a form of the gold standard known as the gold bullion standard. It was hoped at the time that this measure would restore our foreign trade to its former value and stability. Unfortunately, however, we returned to the gold standard at too high a parity with the result that sterling was over-valued abroad, a factor that had adverse reactions on our export trades. Internally, the gold standard proved inconvenient owing to the new rigidity of our economic structure; prices and wages resisted the changes that should follow gold movements if

the gold standard is to function effectively. During the crisis of 1931, the Gold Standard Act was suspended indefinitely.

5. The Working Class Movement in the Post-War Years

Under this heading a series of related topics are conveniently grouped. In many respects the War effected a radical change in the position and outlook of the working classes. In the first place unemployment was eliminated; secondly, female labour acquired a new importance in the employment field; and thirdly, the standard of living of the working classes as a whole rose definitely. Between 1914-1918, the State regulated the economic life of the working classes to an extent that would have been considered Utopian in 1913; a return to the old condition of things was impossible.

(1) THE TRADE BOARDS SYSTEM. The Trade Boards system dates back to 1909, but by the end of the War the principle of State regulation of wages was well established. Tribunals with powers to make binding awards on all workers in controlled establishments were set up under the authority of the Munitions of War Acts; in 1917, an Agricultural Wages Board was established under the Corn Production Act. As a part of the policy of reconstruction the Ministry of Labour set up a number of new Trade Boards in various occupations. Between 1919 and 1922, Trade Boards regulating the wages of over three million workers were set up in thirty-nine trades. The movement was not wholly successful, as unemployment was often caused by the fixing of too high minimum rates. In 1922, following the recommendations of the Cave Committee, much of the power of the Boards was transferred to the Ministry of Labour; and the establishment of new Boards was restricted to trades in which wage rates were unduly low.

(2) THE WHITLEY COUNCILS. Another aspect of reconstruction was an extension of the principle of conciliation known as the Whitley Council Movement. Under the recommendations of the Whitley Committee, national industrial councils were proposed for each trade for the purpose of adjusting differences between employers and employed.

During the early post-War years Whitleyism spread rapidly, but the movement was most successful in the less organised trades. Where the workers were highly organised the movement was opposed and checked by the trade unions, which viewed with suspicion what they regarded as rival organisations. The most successful work of the Whitley Councils has been done in the Civil Service, but circumstances were specially favourable to the principle of joint control in the Government Departments.

(3) TRADE UNIONISM. The years 1919 to 1927 were characterised by a series of labour disputes. During the War years, although trade union regulations were temporarily suspended, high wages and regular employment led to a great increase in trade union membership. Immediately after the War, determined to maintain their new gains, the trade unions started a general offensive for the 48-hour week. They gained a great victory in the Report of the Sankey Commission which recommended national ownership and democratic control of the coal mines; and the railwaymen were victorious in the strike of September 1919.

The union offensive was temporarily checked when the post-war trade boom ended towards the end of 1920. The employers' federations began a counter-attack with the object of reducing wage rates. The coal owners locked out the miners in 1921, and after a long struggle during which the miners made a vain appeal for aid to the transport unions, the miners' union was defeated. In the

following year the engineer trade unions were also defeated after being locked out by the employers' federation.

The abnormal wave of unemployment which swept over the country, and which persisted several years, was very unfavourable to militant unionism, but in 1923 there was a strike in the building trade to resist the attempt of the employers to cut wages and lengthen hours; and a strike of the Norfolk agricultural labourers for the same object. Disputes were less serious in 1924 and '25, though in the latter year there was a strike in the woollen textile trades which lasted three weeks.

The storm centre of labour disputes down to 1927 were the miners and the railwaymen. The workers in both these industries made substantial gains during the War years, partly because these occupations were subsidised by the State, and when the railways and the mines were again handed back to private control difficult problems were raised.

The situation was the more serious owing to the great strength of the miners and the transport unions. National federations of employers had forced the workers to organise their unions on national lines; this tendency was also strengthened by the effects of the State Insurance Acts. The miners, railwaymen, and other transport unions had entered into a close working alliance. The War, and the Revolution in Russia, had bequeathed a legacy of social discontent. The extremist sections of these unions preached the doctrine of the General Strike after which each trade union would take over its own means of production in a new order of society.

The miners' lock-out in 1921, which followed the decision of the Government to decontrol the industry has already been briefly noted. The miners did not wish to return to the era of unrestricted competition between pits in different districts. They proposed that wages should be subject to some degree of equalisation. In

the richer pits it was easily possible to pay a satisfactory wage to all the miners employed, but many poor pits were hardly worth working unless the men in them received very low wages. If all the mines were State owned it would be possible to pay adequate wages to all men from the excess profits in the richer mines. The miners demanded that this should be done, whether or no through the medium of State ownership.

The dispute was of importance because there was at one time a possibility of the dreams of syndicalism being fulfilled. There was a real danger that the miners, transport workers, and railwaymen would strike together, but on April 15th (Black Friday) the other unions decided not to join the strike. The miners remained out until July.

The wages agreement after the strike of 1921 was replaced by another in 1924. In June 1925, the coal owners gave a month's notice to terminate the agreement and reduce wages, and a struggle seemed certain. The Government bought off the fight by a subsidy (24 millions up to May 1926), the men continuing work on the old conditions. A Royal Commission was appointed which reported early in 1926. It satisfied neither masters nor men. This time all the unions decided to support the miners, and the great General Strike began in May, but for various reasons, perhaps the most important of which was that the influential leaders of the trade union movement had no real desire for a revolution, the strike was called off after ten days. The miners continued their strike for about six months, but were defeated.

The result of the General Strike was the passing of the Trade Union Act of 1927 which deprived the unions of some of the advantages gained in 1906. Under this Act the right to the sympathetic strike is limited, and any strike becomes illegal if it is designed either to coerce the Government by inflicting hardship on the community, or has any object other than the settlement of the trade

dispute within the industry in which the workers are engaged.

By the terms of the Act of 1927, the provisions of the Trade Disputes Act of 1906 do not apply to an illegal strike; in other words, it is now illegal to apply trade union funds for the purposes of an illegal strike. The right of peaceful picketing, allowed by the Act of 1906, is now greatly restricted, and persons refusing to take part in an illegal strike are protected from victimisation by their trade unions.

(4) SOCIAL INSURANCE. The greatest difficulties of severe unemployment, the danger of starvation, and the consequent risk of revolutionary troubles, were avoided by the extension of State unemployment insurance. Already before the War, this scheme of State insurance had proved its value; workers in certain trades peculiarly liable to unemployment were required to pay a weekly contribution which was supplemented by contributions from the employers and the State. As the soldiers were demobilised, it was seen that there would be a difficulty in resettling them into productive work, and unemployment insurance was granted to them until they found suitable work. When the slump came in 1921, it is difficult to see how serious trouble would have been avoided had not some such scheme existed in a state of working efficiency.

Since 1921 the scope of the Insurance Acts, health as well as unemployment, has been progressively extended to include practically the whole of the working classes. The workers are not only insured against sickness and unemployment, but are provided with pensions at the age of sixty-five. Pensions Acts have also been passed which provide pensions for the widows of insured persons, and allowances for their children; non-insured persons in receipt of an income below £400 per annum are now allowed to make voluntary contributions for that purpose.

(5) PUBLIC ASSISTANCE. The development of State insurance made necessary some change in the administration of the Poor Laws. The fundamental principles of 1834 remained practically unreformed down to 1929, although a Royal Commission in 1909, and a Committee of the Ministry of Reconstruction in 1918, had recommended drastic changes. These recommendations, however, were embodied in the Local Government Act of 1929, which abolished the Boards of Guardians, chosen for Poor Law purposes only. The powers and duties of the Guardians are now vested in the County, and County Borough Councils, out of which public assistance committees are formed to provide for the destitute in the same way as committees are formed for the management of education, highways, electricity supply, etc.

This marks a fundamental change of attitude towards the problem of poverty. The relief of destitution is now treated like education, and public health, as a social service.

(6) EDUCATION. The principles of national reconstruction were also applied to education. In 1918, the Fisher Education Act, which provided, among other things, for Day Continuation Schools for all young persons in employment, was passed. This part of the Act, however, was allowed to lapse in the wave of retrenchment that followed the slump of 1921. In 1926, the Hadow Committee made recommendations, which were accepted by the Government, for the complete reorganisation of elementary education. The division of schools into primary, for children below the age of 11 +, and post-primary, for children from 11 + upwards, is now almost completed. An Act has been passed, and which comes into operation in September 1939, which raises the school leaving age, with certain exemptions, up to 15 years. Great developments have also taken place since 1918 in secondary, and technical education, and further changes of great importance have been recommended in a recent Report.

6. Housing

The building of dwelling houses practically ceased during the War years, and after the Armistice was signed the shortage was felt acutely, and the State had no option but to intervene. In 1919, the Addison scheme charged the local authorities with the duty of providing the necessary houses within their areas. A penny rate was allowed for housing purposes, and the State guaranteed the remainder. A subsequent Act granted subsidies up to £250 to private persons building houses at a cost not exceeding £1,000 within a given period.

Owing to the heavy cost the Addison schemes were "axed" by the Geddes Economy Committee, and the State embarked on a new policy. Under the Mond scheme, the State arranged to pay a fixed sum per annum per house for a period of twenty years; the greater share of the burden was thus thrust upon the local authorities. The new policy was modified, however, in the Wheatley Act of 1924, by which the State contributions to the local authorities were increased in amount and in duration.

Under the Housing Act of 1925, powers were given to local authorities to compel owners to make houses fit for habitation in accordance with the requirements of the local Medical Officer of Health, and to order the closing and the demolition of insanitary and obstructive buildings. Every local authority was required to provide schemes for the reconstruction of unhealthy areas, and to make suitable and necessary provision for such working class dwellings as are from time to time required.

In 1926, a Rural Workers Housing Act was passed with the object of bringing the cottages occupied by agricultural labourers up to the modern standard of comfort and sanitation, and this was followed in 1935 by a comprehensive Housing Act to make over-crowding a punishable offence; to consolidate all the existing housing subsidies;

and to provide that the State pays two-thirds, and the local authorities one-third, of the costs of slum clearance.

7. Transport

During the War years the railways were taken over by the Government and a certain dividend was guaranteed to the shareholders. When decontrol took place the prospect in front of the railways was not cheerful. In addition to the difficulties inseparable from post-war conditions, the rolling stock and in some cases the permanent ways had deteriorated; some lines and stations had been closed, and there was little inducement to reopen them. The Government considered that great economies could be made by amalgamation of companies and reorganisation. Before the War there had been understandings between certain lines, *e.g.* the L. & Y.R. and the L. & N.W.R. The Government passed the Railways Act in 1921, which divided English, Welsh, and Scotch railways into groups; these groups were to combine by July 1923 into four great amalgamations. The grouping took place voluntarily, for the most part, before the allotted date; for instance, the L. & N.W. absorbed the L. & Y.R., whose shareholders exchanged L. & Y. shares for shares in the combined company. This was joined by the Midland Railway and by smaller lines to form the great London Midland and Scottish Railway. Other great groups became the London and North Eastern and the Great Western Railways respectively; the fourth group became the Southern Railway.

The Act of 1921 provided that the railways should obtain a standard revenue equal to that of the last pre-war year. To determine the rates necessary for that purpose a Railway Rates Tribunal was set up. The duties of the Tribunal were to take over many of the functions of the Railway and Canal Commission; to consider schedules of

rates submitted to it by the companies; and to furnish the Minister of Transport with an annual report.

A Central Wages Board to regulate wages and conditions of service was set up, and for cases of dispute, provision was made for an appeal to a National Wages Board on which the companies and the railwaymen were equally represented. Sectional Councils were also established through which the railwaymen might influence the management of the railways.

Post-war railway history, however, centres round the competition between the railways and road motor transport. Down to 1914 road motor transport was shackled by obsolete regulations, but in 1919 a Ministry of Transport was established for the purpose of developing the roads and their uses. In the early post-war years rail and road transport were regarded as complementary services; it was believed that the roads would act as feeders to the railways, and that this capacity would more than compensate for any loss of short-distance traffic that might be diverted from the railways to the roads.

The rapid extension of road motor transport has had very different consequences. The two services have proved to be not complementary, but highly competitive; an enormous volume of both goods and passenger traffic has been lost by the railways, and since 1925 the future of the railways has been a serious problem for the nation. Transport Acts have been passed with a view to limiting the competition of the road transport companies, and the railway companies have been allowed to operate on the roads either directly, or indirectly by acquiring an interest in road transport companies. The problem, however, has not yet been solved.

Perhaps the most important factor in the problem is that the railways are handicapped by very heavy overhead expenses; a railway company has to build, and to maintain, its own permanent way; the road transport companies, on

the other hand, operate on roads that are constructed and maintained by the whole community. Their heavy overhead charges thus make it impossible for the railway companies to face successfully the road transport competition.

8. Agriculture, 1914 to the World Depression

During the last forty years of the pre-war era, English agriculture was in a depressed condition. English farmers had never recovered from the great agricultural depression, and the Death Duties had created a tendency towards the breaking up of large estates, land having to be sold to pay the duties in many cases. Thus it was less possible for the great landowners to treat their agricultural work as a kind of hobby, and to lend stock to their tenants at a low rate of interest. As a result, much of our arable land seemed to have gone permanently to grass.

The German menace changed all that during the war period. From the beginning of the War it was obvious that one of our greatest difficulties would be that of feeding our overseas armies and our home population. As the War progressed, the German submarine menace became more and more threatening, and for a time our position was one of grave danger. It was thus necessary to increase our home production of cereals to a degree that would have been thought unwise or even impossible in peace time, and which was made possible only by Government help, stimulation, and control. As a result, the agricultural depression gave place to a period of great prosperity. Scarcity ruled, prices were high, and there was danger of real want in the land, but just because the utmost efforts of our farmers were insufficient to feed our large and closely-packed population, the farmers themselves had ample compensation for the bad times through which they had themselves passed.

Unfortunately for the farmers, the boom ended when the need for high production of cereals passed away, and food could again be easily imported. The condition of the farmers was very serious because many of them had purchased their farms at high prices during the boom years, and were thus saddled with heavy interest charges. In addition to that, other expenses of production, especially wages, had greatly increased in comparison with the pre-war years. One result of this was that between 1920 and 1930 a very large amount of agricultural land was turned over to pasture. During this period the Government made at least two attempts to relieve the farmers. Steps were taken to ease the burden of the tithe, and by the Local Government Act of 1929 agricultural land, and buildings used solely for agricultural purposes, were de-rated, that is to say exempted from payment of local rates. De-rating doubtless did assist the farmer to some extent, but the main problem of agriculture remained unsolved.

9. Industry, 1914 to the Great Depression

It is now possible to briefly review the fluctuations of industry during the war period and after. At the beginning of the War it was hoped in some quarters that " business as usual " would be possible, but as time passed, and the size of the operations became apparent to all, it was seen to be inevitable that sacrifices of a nature undreamt of in peace time must be made for the sake of the successful prosecution of the War. Some measure of State control of industry was then seen to be inevitable. Thus certain industries were deliberately discouraged, while others passed through a time of depression. The labour and capital tended more and more to be appropriated directly for war purposes or for the production of necessities.

In the first place, the money obtained by the Government by the sale of gold currency to foreign countries, by taxation, or by loans, was applied to the satisfaction of the needs of

the fighting forces. England is not self-supporting as regards food supplies, and for a time the soldiers were fed on a scale more liberal than was thought necessary for the same men in peace time. Clothing of good quality was necessary. So far, what was required was simply a rather greater import of food and raw material, and a rather more intensive manufacture of textiles, chiefly wool. The necessary munitions required what was really the growth of a completely new industry from very tiny beginnings. Nitrates and other raw materials had to be imported, while an enormous amount of money had to be laid out in the building of new munition works and equipment. Skilled chemists had to be found for this responsible work, and as time passed it was necessary to make war implements and war supplies in ever-growing quantities. The national resources were concentrated in the new munition factories.

To some extent the resources necessary were obtained by transference; as certain industries were damped down, the capital and labour they formerly employed were transferred to munition making. There was also, however, a considerable amount of new capital and labour available. Under the influence of patriotic feeling, and under the compulsion of the scarcity of peace-time amenities, there was a great response to the appeals of the Government for loans to carry on the War, while taxation was very heavy. Many men, and especially also women, who had formerly done little productive work, or had done it at low pressure, were stimulated by patriotism, or by the attraction of high wages. Men who had retired from active service came back again to help a community which had sent its most virile elements out of the country. In addition, there was a great amount of voluntary work which was apparently of little importance, but whose total effect must have been considerable.

There was a rapid and considerable change in the structure of industry in this country. Many trades which

are of priceless value in peace time had to be sacrificed to the need for national defence. Those industries which were necessary for the successful prosecution of the War were in a state of unexampled prosperity.

After the War, resettlement of the returned soldiers and sailors was necessary, and in many cases these found it a very difficult matter to return to their employment; they were returning to new conditions. For a time, there was much confusion, increased by the fact that the munition works lost their importance, and in many cases had to be entirely scrapped. Soon, however, the industries which had managed to persist throughout the War began to develop again. A world which had been denied most of its luxuries for many years was now better able to make its demands effective, and gradually production began to resume its peace-time appearance, in that the goods produced were essentially those required to build up the stocks of traders who had hitherto to give way to war demands. The demand for manufactures became very insistent, and industry experienced a boom comparable with the most feverishly productive years before the War. In the cotton and motor trades, for example, labour and capital were absorbed with ease, and still the world cried out for more British goods. German competition was, of course, temporarily crippled. Excited buyers offered high prices for Lancashire cotton factories, and far-seeing holders accepted the offers.

There could be only one result to this feverish activity. As usual in these cases, there was in the industrial atmosphere a feeling of excessive optimism not warranted by the facts. A hungry world called for goods, but its appetite began to be satisfied. Some Japanese merchants countermanded their orders for British goods, and confidence was lost. The boom had some measure of solid foundation, inevitable after a war in which the normal course of trade had been dislocated, but manufacturers

tempted by sudden prosperity partly caused by the still depreciating pound notes, and hence the still rising prices, now realised that they were on treacherous ground; there was an epidemic of bankruptcies.

The years since 1920 have seen no recurrence of boom conditions; down to 1930, some years were better than others, but the spectre of a huge army of unemployed was always in the shadow.

Between the years 1926 and 1930, the real volume of British exports, especially in the cotton trade, declined steadily; on the other hand, the rise in the volume of imports, especially of foodstuffs, was equally marked.

The volume of British production during these years, however, did not suffer a decline proportionate to that in the volume of our export trade, mainly because since 1926 we have produced much more than formerly for home consumption. The increase in the volume of imports has been explained by the fact that owing to the fall in values of colonial and foreign raw materials, a given volume of exports, during these years, purchased about 18 per cent. more imports than in 1914; and to this reason may be added that of the general rise in the standard of living.

The steady rise in the unemployment figures between 1928 and 1931 hinged on the deplorable state of the staple exporting industries; on the other hand, the position was alleviated to some extent by the rapid development of industries such as artificial silk, and the motor and electrical trades which cater largely for the home market, and by the new demand for labour created by the development of road transport.

10. Commerce

During the War, the German submarine attacks were the dominant feature. Our enemies had grasped the fact that with all our world power we, as a group of outlying islands, were extremely vulnerable to an attack on our trade routes

if our supremacy at sea could be broken. So important was this held to be, that the entry of U.S.A. into the War was deliberately risked, so great would have been the effect if our sea power had been shattered. The gamble was lost, and U.S.A. came into the War, but the struggle was hard, and our position at times was one of some danger. Commerce, then, during the War, consisted almost exclusively of the carriage of necessities and war materials so far as the gauntlet of the German submarines could be successfully run. The effect in England was that the price of things which were not quite necessities and which had to be obtained from abroad rose very steeply, while such things as Jena glass and certain chemical appliances and materials were practically unobtainable, as they were almost a monopoly of enemy countries. Commodities like sugar, again, rose greatly in price; before the War the supplies had come largely from Germany, from the departments of France devastated during the fighting, and from the West Indies, from which place transit was difficult and dangerous.

Immediately after the War, the outlook for our trade was not hopeful. Much of our mercantile marine had been sunk by submarines, and there was thus a great shortage of shipping, while shipping rates were very high. The tremendous insurance charges of the War period were, however, no longer in force. Suggestions for the mass production of standard ships did not materialise, and our traders had to rely on the slow replacement of our shipping. In the post-war years, our deficiencies began slowly to be made good, and rates were gradually reduced.

This did not lift British shipping out of the depression. Since the War all the shipbuilding centres have been depressed areas. For this, various reasons have been brought forward, but the most important one is the greatly decreased volume of international trade in general, which has struck a heavy blow at the ocean transport trade.

11. The World Slump

The world depression began with the collapse of the trade boom in America in 1929. The sensational fall in the prices of American stocks in 1930 curtailed drastically the demand for manufactured goods from countries exporting raw materials; and also reacted adversely on the rate of increase of new capital investments everywhere, for the rapidly falling price level forced liquid capital from industry into fixed interest-bearing securities. The result was an alarming growth of unemployment in Europe and in America. In Great Britain the unemployment figures almost doubled during the year 1930, and in Germany and the United States the position was even worse.

Following this abnormal unemployment came falling profits and wages; the burden of public expenditure proved impossible to shoulder; and where budgets were balanced it was only at the cost of great national sacrifices. First Australia, then Brazil, and later Great Britain were forced off the gold standard; and as under the circumstances, payments of interest on international war debts and reparations was impossible, the President of the United States was compelled to initiate a general moratorium with respect to war debts and reparations.

Opinions differ very widely on the causes of the world depression which differed in many respects from the periodic crises of the nineteenth century. Only in the United States was it preceded by a boom period; hence one explanation seeks the cause in over-speculation in that country. More usual arguments, however, trace the cause to such different factors as a too conservative banking policy; certain defects in the gold standard; a disproportionate increase in the production of certain commodities; under-consumption, and over-saving; and the tendency of banks to issue credit at a rate of interest below the natural one determined by the relation between the demand for capital and the supply of real savings. Other schools of

thought place the blame on the artificial restraints on trade created by a narrow spirit of economic nationalism; and on the too rapid mechanisation of industry caused by the recent intensive application of scientific principles to the methods of production.

A rigid analysis of these arguments would fall outside the scope of this work. Each can claim the support of recognised authorities, and contains, without doubt, some aspect of the truth. Probably no single cause will account for the whole of the facts. One thing, however, is certain, and that is that neither the World Depression, nor the trade fluctuations of the early post-war years, are identical in character with the regular alternating booms and depressions of the nineteenth century. In a later section, certain factors that have changed the economic structure of society since the end of the nineteenth century, and which shed high light on our post-war economic troubles will be examined in some detail.

12. The Crisis in England, 1931

By the beginning of 1931, the increasing difficulty of financing the insurance of unemployment began to alarm the British Government. In May of that year a Committee was appointed with Sir George May as Chairman, to consider the whole position of public expenditure, and to make recommendations to the Chancellor of the Exchequer with a view to effecting drastic economies.

The Report which was published in July contained recommendations for economies in the Defence Forces and in the Social Services to the extent of £96½ million. The main changes recommended were revised rates of pay for the Army, Navy, and Air Force; a cut of 12½ per cent. in the pay of the police, and a cut of 20 per cent. in teachers' salaries. A reduction of unemployment insurance benefits by 20 per cent. was also suggested. There were various

minor recommendations, but the main economies were to be effected at the expense of education and unemployment insurance.

While the May Committee was deliberating, matters came to a head. Early in the summer, Germany suffered an almost complete financial collapse. This was caused partly by payments of war reparations and partly by the impossibility of meeting the interest charges on capital borrowed from abroad to reorganise her industries. In order to prevent default, and probably revolution, English bankers advanced to Germany large amounts of money with which to tide over the emergency. Unfortunately, these loans were made with American and French money deposited in London, and when the American crisis forced her bankers to call back these deposits, England, unable to obtain repayment from Germany, saw her gold reserves drift to America. In order to balance this loss, England appealed for loans to France and America, but America refused to lend unless guarantees were given that our Budget would be balanced so as to remove the necessity for further loans to meet current expenditure. This in turn caused a political crisis and the Labour Government was replaced by a National Government elected for the definite purpose of averting a national bankruptcy. In spite of the fact that the new government succeeded in borrowing £80,000,000 from America, England was compelled to abandon the gold standard; but the financial situation eased a little after the Budget had been balanced by a modified application of the May recommendations, and the adverse trade balance corrected by tariffs on various imports from foreign countries.

This definite reversal of our fiscal policy is perhaps the outstanding event in post-war Economic History. The logic of circumstances accomplished what even the eloquence of Chamberlain failed to achieve.

The circumstances were, of course, peculiarly favourable, and the change was accepted as an emergency measure by thousands who still believe in free trade as a general principle.

In 1932, a second economy report, that of the Ray Committee, emphasised the need for further reductions in local expenditure, and a revision of the system of Government grants-in-aid to local authorities.

Other outstanding events of 1932 were the conversion of the 5% War Loan Stock into practically the same amount of 3½% Stock, and the Ottawa Imperial Agreement signed August 1932. The value of this Agreement has been estimated differently by various critics, but the fact remains that a new era has been opened up in the relations between the component parts of the Empire. As a result of the agreements reached, the Dominion and Colonial producers enjoy a position in the British market as favourable as is compatible with the interests of the home producers and the necessity of avoiding any marked rise in the cost of living in Great Britain. In return, British manufacturers were given more equitable treatment in the Colonial and Dominion markets. A foundation has been laid upon which it will be possible to develop a policy of economic co-operation.

13. The Return to Protection

After the General Election of 1906, the social reform programme of the Liberal Party practically shelved the question of Tariff Reform for many years, and it did not again emerge as a vital issue until the conversion of Stanley Baldwin to the cause of Protection at the end of 1923.

The War, and its effects, however, caused some modifications to be made in our fiscal policy. Early in 1915 it had become apparent that certain forms of production must be regarded as key industries, absolutely necessary for our existence in time of war. In the same year the

McKenna duties were imposed on cinema films, watches and clocks, and motor cars for the purposes of revenue. These duties were attacked by free traders as a dangerous precedent, but until 1924 they were reimposed annually by Budget resolutions. In 1924 they were allowed to lapse.

That the free trade principle was still accepted in this country at the end of the War is proved by the recommendations of a Committee on Commercial and Industrial Policy which issued a report to the Government in 1918. The Committee not only rejected the policy of a general tariff, but it also condemned the principle of raising revenue from duties on manufactured goods. At the same time, however, it recommended that protection should be given to such industries as were suffering from the effects of goods " dumped " into their markets by foreign manufacturers. The Committee also advised that protection should be given to " key " industries. These recommendations were adopted in the Safeguarding of Industries Act of 1921. Import duties were levied on articles considered essential for modern warfare, or essential for the development of our staple national industries. Wide powers were given to the Board of Trade for the purpose of protecting home industries against unfair foreign competition; any British industry which could prove itself of such importance as to be considered a " key " industry had the right to apply for special protection against foreign competition, and such protection was given by the Board of Trade in many cases.

Between the years 1924 and 1928 the protectionist movement again receded into the background, but after that date the serious decline in the volume of our foreign trade brought the demand for Tariff Reform once again to the front, and the crisis of 1931 forced the issue beyond the stage of controversy. On March 1st, 1932, the Import Duties Act, which authorised in Great Britain a general system of protection, came into force. This Act provided

for the levying of a ten per cent. duty on all foreign goods which were not already taxed, with the exception of a small number of goods which were to remain on the Free List for the time being. A Tariff Advisory Committee was set up to advise the Treasury; and the Act also provided for the further taxation of any goods upon which the Tariff Advisory Committee judged the ten per cent. duties inadequate.

Whether British industries have gained or lost by the reversal of our fiscal policy is a question highly controversial. Between 1932 and 1938 the general economic condition of the country apparently improved, but how much of this improvement has been due to protection, and to what extent the improvement can be attributed to independent causes—cheap money policy, building programmes, and re-armament, and the reconstruction of certain industries—cannot be determined here.

Free traders argue that our tariff policy has merely led to retaliation by other countries, many of which have since increased their restrictions against British goods. They also point to the fact that certain countries—Germany, Italy, Poland, and France, almost immediately cut down their quotas of British imported coal.

Protectionists point out that our change of policy has made possible a number of bilateral trade agreements between England and various States. Free traders, however, deny that any of these agreements has tended to a reduction of tariffs in a real sense; they argue further that it is this very bilateralism that has been the primary cause of the great decline in the volume of world trade in recent years. Bilateral agreements aim at a balancing of visible exports and imports between the parties to the agreement; such balancing, however, is contrary to the first principles of international trade. In natural conditions, visible exports and imports between two countries are not in the least likely to balance, and there is no reason

why they should; under bilateral agreements a country tends to import from the other party to the agreement what it could buy more cheaply elsewhere. It may also be noted that some authorities take the view that if England had remained faithful to the principles of free trade, the World Economic Conference of 1933, at which fifty-seven nations were represented, might have achieved some fruitful results.

14. The Ottawa Agreements

At the Ottawa Conference of 1932, a number of agreements made possible by the Import Duties Act, were reached between England and the Dominions. The purpose of these agreements as stated by Mr. Baldwin and other leaders was to be the development of more trade, and freer trade, within the Empire; at the same time, the principle of Empire free trade was rejected as impracticable largely because one effect of the War had been the rapid development of manufacturing industries within the Dominions. The "infant" industries in the Colonies feared the competition of British goods as much as that of foreign goods; Britain, on her side, was not disposed to levy high duties on the imports of foreign food-stuffs and raw materials for various reasons.

The general principles embodied in the individual agreements were briefly as follows:—Britain agreed to exempt Empire products from the scope of the Import Duties Act of 1932, and to maintain at least the existing ten per cent. duties on certain specified foreign products. Britain also agreed to impose, or increase, the duties on the imports of certain foreign foods and raw materials in which the Dominions has a special interest.

On their side, the Dominions agreed to protect by tariffs against British goods, only such of their industries as had a reasonable prospect of success. In every case where protection is afforded, the tariffs shall be such as will give

British producers a reasonable opportunity to compete. The third agreed principle was that tariffs on British goods shall be always lower than those imposed on foreign goods.

The Ottawa Agreements have been praised and blamed by different parties. Lord Snowdon denounced them in vigorous language. He argued that Britain gave much and gained nothing; that the Dominions gained a free market in Great Britain, and retained their protective, and in some cases prohibitive, duties against British trade.

Tariff policy, however, is only one aspect of the new State regulation of the economic life of the country. The most marked characteristic of the history of the post-war years is the rapid growth, even in this country, of State regulation of the economic life of the nation both by direct and indirect means. Down to 1914, the economic structure of England rested on the principle of *laissez-faire*. That principle, it has been said, died at the outbreak of the War.

Since 1926, England has moved in the direction of a planned economy within the limits of private capitalism. Tariff policy is only one aspect of planning; a number of important industries have been reorganised on lines radically different from those on which they functioned in the nineteenth century. Planning is a subject as controversial as tariffs; it has been blamed as a primary cause of the great world depression; it has been hailed as the only remedy against a recurrence of the depression. There is one point, however, on which all observers are agreed, and that is that free competition, the mainspring of economic life in the nineteenth century, is now almost non-existent; but before making a survey of the application of the principles of planning to certain industries, it is necessary to consider briefly certain factors in post-war economic life which had little, if any, force in the nineteenth century, and which help to account for the decay of competition since 1914.

15. New Economic Factors in Post-War Economic Life

The first marked point of contrast between post-war economic society and that of the nineteenth century is the fact that population is no longer expanding rapidly, but, on the contrary, has become approximately stationary, with a tendency towards an absolute decline; and in recent years this change has affected the character of demand.

A relatively stationary population means a smaller demand for the primary necessities of life—foodstuffs, clothing, and in the long run, houses—and an increased demand for the so-called luxuries. This is a fact of great economic importance, because for a given population the demand for the primary necessities of life fluctuates little; in economic language, demand is relatively inelastic.

The demand for luxuries fluctuates more widely, apart from any question of changes in price, because it is influenced so largely by changes in tastes and fashions. But shifts of demand is a very serious matter for productive industry, unless the economic organisation is fluid enough to easily adapt itself to changes, and as will be shown presently, that has ceased to be the case to-day.

The second point of contrast is the post-war change in the distribution of income. It is a commonplace now that, compared with the pre-war period, the working classes receive a larger share of the fruits of industry. This means, especially now that working class families are smaller, a greatly increased demand for the so-called luxuries of life. These two new factors thus influence demand in the same direction.

The third point of contrast is the new rigidity of wage rates. In pre-war days wages were relatively fluid and were adjusted with comparative ease to the general conditions of demand and supply. Since the War, two factors have combined to rob wage rates of their former fluidity; these factors are public regulation of wages either

directly by the State, or by means of collective bargaining, and the unemployment insurance.

Finally, the structure of industry itself has lost the fluidity it possessed in the nineteenth century. In Victorian days the typical business was a relatively small-scale concern, controlled either by one master, or two or three partners, and the proportion of fixed capital used was relatively small. The result was that a business or an industry could adapt itself relatively easily to new and changing conditions. The form of the management favoured initiative and rapid decisions; the relatively low overhead costs made it possible to damp down the rate of output when required.

The typical business of to-day is the large joint-stock company and combine: indeed, one of the marked features of post-war industrial history has been the strong tendency to combination, especially in the highly capitalistic industries. The giant company, or combine, is a relatively rigid industrial unit for two reasons. One is that the organisation lends itself to routine methods rather than to initiative; responsibility tends to be diffused instead of being concentrated at one point. The other is that mass production methods and technical progress has necessitated a much higher proportion of expensive fixed capital than was formerly employed. The fact that this capital is highly specialised diminishes the adaptability of a firm; the fact that overhead charges are now a high proportion of total costs makes it difficult to damp down output when demand falls off.

This new rigidity of the economic structure of society, so marked a contrast compared with that of pre-war days, has led to experiments in planning in a number of industries, in other countries as well as in England. In England, the most important experiment in planning has taken place in agriculture, but the movement has also affected coal, and other trades.

16. Control Schemes for Raw Materials

A stimulus in the direction of industrial planning has been given by the growth of schemes of control of the output of the primary raw materials. In the production of the primary raw materials a drastic revolution has taken place since 1914, and in almost every country the production of wheat, sugar, tin, cotton, coffee, and rubber, for example, is now artificially controlled.

These control schemes are a direct result of the War. The War caused changes in production not only in the belligerent States, but in other countries as well. The destruction of the sugar-beet districts of France and Belgium made it profitable to extend the cane-sugar production of the West Indies. For the same reason Canada increased her output of wheat when the export of corn from Russia ceased. When the War ended, countries which had greatly expanded their production of raw materials found themselves confronted with unexpected marketing difficulties. In some cases countries that had ceased to export during the War years now began to export once again, so that severe competition led to falling supply prices. Secondly, in the wave of economic nationalism that swept over the world, countries began to adopt a policy of self-sufficiency as far as was possible. That, among other things, resulted in a highly fluctuating demand for many primary raw materials, and in order to stabilise production, schemes of control developed in the production of almost every raw material. Whether these control schemes are sound from the economic standpoint, and whether they are to the ultimate advantage of the world as a whole is a very controversial question; but they do appear to have rid those industries which have adopted them of a disease known as surplus capacity, and one which has troubled many of the staple British industries since 1925. The great drawback to these schemes is the temptation to produce the minimum, and not the maximum output.

17. The British Coal Trade

The foundations of British industrial and commercial supremacy in the nineteenth century were laid upon coal; since 1920 the plight of this industry has been one of the tragedies of post-war history. In most of the years between 1920 and 1929 a very large part of the annual output was raised at a loss.

Since 1919, the coal industry has been confronted with many difficulties, especially with regard to the export trade. The War, and the wave of economic nationalism which succeeded it, led to a great expansion in foreign countries in the production and use of coal and its substitutes, oil, and hydro-electric power. At the same time, technological progress greatly increased the efficiency of fuel consumption. These two factors in conjunction greatly decreased the foreign demand for British coal, and to a lesser extent, the home industrial demand.

It has also been argued that a third factor of no small importance in the decline of the export trade was the long and serious labour disputes in the coal industry between 1920 and 1926. It has often been asserted that the main result of the great strike of 1926 was the permanent loss of many overseas markets.

The industry was also troubled by serious internal difficulties. Many of the pits were small undertakings, clogged with obsolete plant and equipment, and too weak financially to adopt improved methods. The smaller collieries also lacked adequate marketing facilities.

The net result of these disabilities was that by 1929 the coal industry was in danger of a total collapse, and in order to avert that danger Parliament intervened and passed the Coal Mines Act of 1930.

The objects of this Act were twofold. In the first place the Act aimed at maintaining selling prices by limiting competition and by regulating output; secondly, the Act aimed at a thorough technical reorganisation of the

industry in order to reduce costs, so as to allow the industry to compete successfully in the overseas markets.

Under the Coal Mines Act the country has been divided into districts in each of which an Executive Board has been set up to determine what output each colliery shall contribute to the district quota, and to fix minimum prices. These Boards are supervised and advised by a General Council, the chief function of which is to fix the maximum output of coal for the whole of the industry, and the quota that each district may produce of that output during a given period. The Act also created a Coal Mines Reorganisation Committee for the purpose of facilitating the production and the sale of coal, and also to assist the amalgamation of undertakings wherever such amalgamations appear to be in the national interest.

The planning of the coal industry has proved less successful than was expected in 1930, though the Act still has the approval of the Miners' Federation. Many critics believe that the fixing of prices and the regulation of output have injured still further the export trade in coal.

Another criticism that has been made against the quota system is that it discourages improvements in mining technique. Modern methods mean high overhead costs, and in consequence, such methods are not profitable except when a large output is possible. On the other hand, the Coal Mines Act has improved the facilities for the marketing of coal.

18. The Agricultural Marketing Acts

A change of even greater significance is the reorganisation of British agriculture, which has been taking place under the Agricultural Marketing Acts of 1931 and 1933. By the end of 1930, British agriculture was in a deplorable condition, due partly to falling prices and the increasing severity of foreign competition, and due partly to the fact that the

most important items in agricultural costs of production—rent, rates, and wages, are items difficult to reduce.

English farming is essentially small-scale production, and from this condition several difficulties arise. In the first place there is little scope for the use of labour-saving machinery as a means of keeping down costs. Secondly, the individual farmer is at a grave disadvantage both when buying his raw materials and when marketing his product. In the nineteenth century, these problems were usually solved in those countries in which small-scale farming was the rule by various forms of co-operation.

In English agriculture the principle of co-operation made little headway in the pre-war years largely because of the peculiar character of English farming. In England, the landlord provided the long-term credit, that is to say, he provided the capital necessary for drainage, farm buildings, cottages, etc. In addition to that, he frequently assisted the tenant in various ways in times of depression.

Since the beginning of the present century the English landlord system has been in process of decay, partly as a result of legislation designed to limit the power of the landowner, but mainly because of the effects of high taxation and death duties which appear to have pressed with special severity on the landed interest.

In these circumstances the State had no option but to intervene. It did so, partly because of a sympathy for the farmers, but also because of the wide-spread opinion that, after the experience of the War years, it was desirable that more of our foodstuffs should be produced at home.

Between 1920 and 1930 the State passed several measures designed to assist agriculture. The de-rating of agricultural land in 1929 has already been briefly noted. Of not less importance were the Agricultural Credit Acts of 1923 and 1928. These measures, however, failed to solve the agricultural problem; the State, therefore, accepted the

view that the only remedy was organisation, and the Agricultural Marketing Acts of 1931 and 1933 were passed.

The substance of these Acts, taken together, provides for the establishment of Marketing Boards to regulate the selling prices and distribution of different agricultural products. The Act of 1933 gives powers to the Board of Trade to regulate the imports of any agricultural product where such regulation appears necessary in the interests of the home production, and when steps have been taken to reorganise the home production through a scheme of marketing control. It also gives powers to the Ministry of Agriculture to regulate the amount of any product that may be sold when such regulation appears necessary in the interests of agricultural reorganisation and stability. These Marketing Acts have effected a revolutionary change in the basic principles of British agriculture. Free competition, and all its implications, has been suspended; the supply of the staple agricultural products, and in consequence, their prices are now State regulated by the quota system of imports, and by the amount that may be sold on the market.

The planning of agriculture has been criticised from many angles, and very adversely too by those who reject planning in principle. The marketing schemes have undoubtedly raised prices of agricultural products since 1931, but there is always the danger that the Boards may become merely agencies for monopolistic price control. It has been argued, too, that it is not the producer who has derived most benefit from the rise in prices. One thing seems certain, however, and that is that marketing schemes in some form or other have come to stay, and in the process of time, doubtless many administrative difficulties and imperfections will be removed.

Political reasons demand that, in the future, England must produce more food, and that requires State control.

19. The Milk Scheme

A brief account of the Milk Marketing Scheme should suffice to illustrate the principles of agricultural marketing (the details of all of the schemes are frequently amended). Under the Milk Scheme, which came into operation in 1933, England and Wales is divided into regions. After prices have been fixed the proceeds of all sales in the district are credited to a pool, and every milk contract must be registered by the Marketing Board. All payments are made through the Board.

Milk prices vary with the purpose for which the milk is used. Milk for domestic purposes, liquid milk, is sold at a higher price than milk used in the manufacture of some other product. The proportions of these two classes of milk vary from region to region, so that in order to prevent great differences in regional prices, and to encourage the production of milk for manufacturing purposes, regions which produce a high proportion of liquid milk contribute to the pools of those districts in which the proportion of manufacturers' milk is high. Producer-retailers can only sell milk retail under a licence which prohibits them from selling any milk below the price fixed for the district.

The scheme may have many defects both from the point of view of the producer, and the consumer, but a definite organisation has made possible a closer supervision of the conditions under which milk is produced, and that is doubtless doing much to raise the standard of quality of the milk supply.

20. The British Wheat Act

Between 1926 and 1931, the position of the British wheat farmers became progressively serious. Wheat prices fell steadily below English costs of production for various reasons, among which may be mentioned the greatly improved machinery that came into general use in Canada, and other wheat-producing areas.

By 1930 it had become apparent that the assistance which had been given so far to the wheat farmers by the Government was inadequate to enable them to cope with the new situation. Import duties on wheat were advocated in many quarters, but full-blooded protection was rejected by the Government, partly because of the problem of Empire-grown wheat, but mainly because public opinion was against the taxation of food.

As an alternative to protection, the Wheat Quota Act was passed in 1932. By the terms of this Act, which is administered by a Wheat Commission, a certain quota of British wheat receives a guaranteed price, and the funds for this subsidy are raised by a quota payment to the Commission on every sack of flour when it leaves the miller. The British Wheat Act gives the benefits of a limited amount of protection to the British wheat growers, without at the same time inducing them to plant wheat on land that would not be utilised for that purpose under free competition.

21. Other Major Industries

Probably no British industry has suffered more than the Lancashire cotton textiles in the new post-war conditions. Since 1913 exports have declined continuously, and in 1931 they had fallen to one-quarter of their volume in the last pre-war year.

By 1931 it had become evident that the industry was organised on a scale much too large for the output likely to be required in the future; Lancashire was therefore confronted with the problem of eliminating redundant capacity in her staple industry. It was also argued that the industry was clogged with obsolete plant, and that only a centralised reorganisation of the whole industry would enable it to lower its average costs of production, and face successfully the new competition from overseas.

One great difficulty standing in the way of eliminating surplus capacity and obsolete plant was the fact that the industry was organised largely on the basis of a large number of small firms, and the small independent unit is not sufficiently specialised for the adoption of modern machinery necessary for mass production and low average costs.

The first great step taken towards combination with the object of lifting Lancashire out of her post-war troubles was the formation of the Lancashire Cotton Corporation in the spinning trades. The object of this Corporation was a horizontal combination of a large number of spinning mills, to effect both a reduction in the number of spindles in use and a higher degree of specialisation in the spinning industry. It is argued, however, that horizontal combination alone does not reach the heart of the problem; what is really required is a vertically integrated industry. In 1936 the Cotton Reorganisation Bill was passed. This Act set up a Board of three members appointed by the Board of Trade, with the function of reducing the number of spindles used in the industry.

In the other branches of the cotton industry there has been a similar movement in the direction of limiting competition through the standardisation of prices, production quotas, etc., since 1931.

Centralised control has also made great progress in the iron and steel trades. The movement towards combination in these industries dates back to the pre-war period, but between the years 1920 and 1930 it made very rapid progress indeed. In addition to such developments as vertical integration, various experiments were made to control production, prices, and to limit competition. By 1931, however, the state of these industries was such that a more drastic reorganisation was necessary, and in 1932 these industries were protected by import duties. The Government afforded this protection, however, on the

condition that these industries reorganised themselves into a state of efficiency, and appointed a Committee to prepare the necessary schemes for submission to the Tariff Advisory Board. In 1934 a reorganisation scheme was adopted by these industries and approved by the Tariff Advisory Board. The iron and steel trades are now governed by a National Federation which renders services of various kinds to its members—the stimulation of exports, the limitation of imports, the fixing of prices and output, etc.

Lack of space prevents this examination from being extended to other basic industries, but sufficient illustration has been given of the fact that the free competition of the nineteenth century has now been superseded by some form of central control of price fixing and output, in almost every industry.

22. The Public Corporations

An economic history of the post-war years would be incomplete without some reference to the development of the public corporation as typified by the Central Electricity Board, the British Broadcasting Corporation, and the London Passenger Transport Board. In one sense the public corporation is not a post-war novelty; municipal undertakings—gas, water, tramways, etc.—were familiar enough in the nineteenth century. The post-war public corporation, especially of the type of the Central Electricity Board and the British Broadcasting Corporation, differs greatly from the municipal public utility undertaking. In the first place they serve a national instead of a local area, and secondly, they are not directly controlled by the State. They are commercial undertakings, semi-autonomous, governed by Boards appointed directly, or indirectly, by the Government, but forbidden to use their services for the purposes of profit.

The Central Electricity Board, established under the Act of 1926, is appointed by the Minister of Transport, and it

is the co-ordinating and controlling authority for the electricity supply in this country. Since its inauguration, it may be said to have solved the main national problems of the generation and transmission of electricity throughout this country.

Unlike the Electricity Board and the Broadcasting Corporation, the London Passenger Transport Board operates in a limited area. It was set up in 1931 to co-ordinate the various transport services in the London area, and to solve some of the problems of London transport. In both cases, however, the ultimate object was the same—the centralised planning of an industry in order that its resources may be used to their maximum advantage. These experiments are of interest as they indicate the lines of probable future development. They show that some of the main objectives of nationalisation can be achieved without State ownership and administration, and that the principles of joint stock association can be combined with a measure of State control.

23. Changes in Localisation of Industry

Since 1920 there has been a drift of the population from the 'former staple industries' areas of the north to the south of England, especially the Thames valley; indeed the phenomenal growth of the Greater London area has become a serious problem for political, as well as other reasons.

Several factors have influenced this drift to the south. In the first place, the industrial changes of the eighteenth and early nineteenth centuries concentrated the iron and steel, engineering, shipbuilding, and textile industries on the coalfields of the north of England. But these are the very industries that have been most affected by the post-war world changes; they have ceased to be a monopoly, in the broad sense, of English manufacturers. Down to 1914 they were our primary export trades.

Since 1920, a number of new industries catering largely for our home market have developed. Artificial silk, the motor and electrical engineering trades are typical examples. For various reasons, among which may be noted the changes in the character of demand due to a rising standard of living, and technical economies in the manufacturing processes, the proportion of labour used in productive processes has fallen, and the proportion of labour used in the distributive and other service trades has risen. That factor alone accounts largely for the astonishing development of Greater London. A very large centre of population tends to require a cumulatively increasing proportion of these services, so that since the War, London has acted on labour as a magnet on iron filings.

Industry is now less dependent on coal, at any rate less directly dependent on coal, than it was in the pre-war years. There is less necessity, therefore, to localise industry on the coalfields. The old manufacturing centres were highly rated areas, and the burden of rates has become more serious in the depressed condition of these areas. New industries have developed, therefore, elsewhere.

In very recent years the demand for labour has been greatly affected by re-armament, and the consequences of a possible European war have caused new factories to be planted in districts determined by considerations of immunity from air raids, that is to say in the more remote districts of the west and the south-west of England. But as soon as large numbers of armament workers are drawn into a new area there is an increased demand for labour to minister to their various needs, and other industries tend to spring up in the vicinity.

24. Price Movements since 1914

To the present generation, relatively stable or slowly changing prices, like the use of the gold sovereign, is now past history. Partly because of the scarcity of goods, but

more largely owing to the great increase in the quantity of money, and to some extent to the higher money wages earned by the unskilled working classes, prices began to rise sharply early in 1915. At the cessation of hostilities, the general level of prices was 125 per cent. above the level of the year 1913, the year usually taken as the base.

The Armistice did not check the rise of prices; the movement continued until the spring of 1920, at which date prices, in comparison with the last pre-war year, had roughly doubled. The break came in the autumn of 1920; prices almost collapsed. In the following year there were oscillations, and in some months prices rose slightly, but after September 1921 the downward movement was steady, and by the middle months of 1922 the general level of prices had fallen to a point roughly 50 per cent. above the 1913 average.

Between the years 1922 and 1929, prices were relatively stable. There was, on the whole, a gradual fall in wholesale prices, due to some extent to the resumption of the Gold Standard after 1925, but compared with the violent changes during the period 1915-1922 prices were relatively steady.

In 1929 the downward movement of wholesale prices was again very marked; a depression started which engulfed the world, and wholesale prices everywhere collapsed. The trough was reached about 1932, after which industry gradually recovered and prices rose steadily up to the end of 1936. In the spring of 1937 the upward movement ceased, and fears were freely expressed that a trade depression was again in sight. Any such tendency has since been arrested by the huge re-armament and defence programme, but what will happen when that programme has been completed it is impossible to say at present.

Price fluctuations since 1914 have been due to many causes, some of which have been discussed incidentally in connection with other topics. During the War and early

post-war years, the rise of prices was caused very largely by the great increase in the quantity of money in circulation; between 1914 and 1920 the quantity of money in circulation was increased by roughly 230 per cent. The fall in prices after 1920 was due to several causes. It was due to some extent to deflation at home and to currency reorganisation abroad, but the early part of the fall appears to have been due also to a decline in the velocity of the circulation of money. Since 1922, fluctuations in wholesale prices, in both directions, have been due to multiple circumstances: monetary policy of different Governments; tariffs, trade agreements, and different aspects of economic nationalism; technical progress in the production of raw materials; schemes for the control of output and prices, and so on.

25. Wages and Unemployment since 1914

In 1915 both wage-rates and the cost of living began to rise, but as war years are abnormal an accurate comparison is complicated and difficult. When food prices soar rapidly, substitution begins, and wage-rates do not rise equally in all occupations. Between 1915 and 1918 the greatest wage gains were made by the unskilled, or relatively unskilled workers in the munition factories. As a whole, however, the rise in wage-rates tended to lag behind the rise in the cost of living until 1919, after which date wages increased more rapidly than did the cost of living until the early months of 1921. During these years the regulation of wages by a sliding scale based on the cost of living index was practised on a wide scale.

For the above reason, the fall in wage-rates in the slump after 1920 correlated approximately with the reduction in the cost of living. The industrial depression, however, led to a mass of unemployment foreign to the pre-war years, and by the middle of 1921 the unemployment figures had reached a total of well over 2,000,000 persons Between

1922 and 1924 conditions definitely improved; sliding scales, collective bargaining, and the great extension of the unemployment insurance checked the fall in wage-rates, and a large proportion of the unemployed was again re-absorbed in industry. Between 1922 and 1924 the unemployment figures fell from over 2,000,000 to just over 1,000,000.

Between 1924 and 1926 the volume of unemployment fluctuated considerably. In 1926 the great coal strike, apart from the question of the miners themselves, caused many workers to be unemployed through lack of coal. In 1927 the unemployment figures fell, but rose again in 1928. In 1929 the Great World Depression began to gather its clouds, and a wave of unemployment without precedent swept over the world.

In the period 1929 to 1932 nominal wages fell on the average between 4 and 5 per cent. This did not lower the standard of living of those who remained in work, as the fall in the cost of living was approximately three times that of the fall in wages. In considering the question of changes in wage-rates between 1922 and 1931, however, it is necessary to remember that the fall in wages in the competitive export trades was much greater than in the so-called sheltered industries—Government and municipal services, and trades producing mainly for home consumption. The sheltered industries gained substantially from the fall in the cost of living during these years.

Unemployment reached its peak about August 1932, after which it fell steadily down to the end of 1937, when we returned to a figure approximately that of 1928. During the year 1938 the unemployment figure rose again in spite of the demand for labour created by re-armament.

From 1932 to the end of 1935 wage-rates fluctuated but slightly, and on the whole the cost of living had a downward trend. In 1936 wages began to move upwards, but so did

the cost of living. The above analysis refers to general trends only, and takes no account of the sharp fluctuations that have often taken place in a single year.

Statements on real, as distinct from nominal wages, and on the cost of living need to be interpreted with caution. A statement that the cost of living is 56 per cent. higher in 1939 than it was in 1913, merely means that the cost of providing for the primary needs of a working-class family would be 56 per cent. higher in 1939 if the family consumed exactly the same things, including qualities and proportions, as it did in 1913.

26. Some Illustrative Statistics

The following tables illustrate some of the subject-matter of this chapter. In many cases different authorities give different estimates, so that the figures should be regarded as approximate and illustrative only.

REVENUE AND EXPENDITURE OF THE WAR AND EARLY POST-WAR YEARS

	Rev.	Exp.		Rev.	Exp.
1913-1914	£198 m.	£197 m.	1920-1921	£1426 m.	£1195 m.
1916-1917	£573 m.	£2198 m.	1922-1923	£914 m.	£812 m.
1919-1920	£1340 m.	£1666 m.	1924-1925	£799 m.	£796 m.

THE WAR AND THE NATIONAL DEBT

1914	1920	1924	1925	1938*
711 m.	£7879 m.	£7708 m.	£7666 m.	£8417 m.

DAYS LOST IN STRIKES DURING THE WAR AND EARLY POST-WAR YEARS

1916	1918	1919	1920	1921	1922	1923	1924	1925
2 m.	6 m.	34 m.	27 m.	86 m.	20 m.	10·6 m.	8·3 m.	8 m.

* The effects of the re-armament programme.

BRITISH OUTPUT OF COAL, IRON, AND STEEL, 1914-1936
(Figures are approximate only)

Year	Coal	Iron	Steel
1914	270 m tons	9·5 m tons	7·0 m tons
1919	244 ,, ,,	8·7 ,, ,,	8·9 ,, ,,
1924	245 ,, ,,	6·3 ,, ,,	7·3 ,, ,,
1929	223 ,, ,,	6·0 ,, ,,	7·7 ,, ,,
1934	220 ,, ,,	4·7 ,, ,,	6·7 ,, ,,
1936	225 ,, ,,	7·0 ,, ,,	10·8 ,, ,,

UNEMPLOYMENT FIGURES AMONG INSURED PERSONS, 1922-1937

1922	14·5%	1926	12·5%	1930	16%	1934	16·5%
1923	11·7%	1927	9·7%	1931	21%	1935	15·5%
1924	10·4%	1928	10·8%	1932	22%	1936	13%
1925	11·3%	1929	10·4%	1933	19·9%	1937	10·8%

POPULATION MOVEMENTS ILLUSTRATED BY CHANGES IN THE NUMBER OF INSURED PERSONS

Administrative Division	1923	1938
London	100	143·7
South-Eastern	100	159·6
South-Western	100	140·3
Midland	100	127·3
North-Eastern	100	111
North-Western	100	103
Northern	100	101
Wales	100	80

The following table illustrates the effect of the world depression on British imports and exports.

	Imports			Exports		
	From Empire Countries	From Other Countries	Total Imports	To Empire Countries	To Other Countries	Total Exports
1913	£192 m.	£577 m	£769 m.	£195 m.	£330 m.	£520 m.
1929	£314 m.	£862 m.	£1176 m.	£288 m	£405 m	£693 m.
1933	£231 m	£426 m.	£657 m.	£144 m	£204 m	£348 m.
1934	£254 m.	£461 m	£715 m.	£166 m	£210 m.	£376 m.
1935	£266 m	£472 m.	£738 m.	£184 m.	£222 m.	£406 m.

Average Level of Wholesale Prices, 1913-1939

1913	100	1921	169	1931	89
1915	120	1923	147	1933	86
1916	156	1925	154	1935	95
1919	226	1927	139	1937	113·5
1920	273	1929	127	1938	99

Wages and Cost of Living, 1920-1937

	Cost of Living	Wages		Cost of Living	Wages
1914	100	100	1929	167	193
1920	247	260	1931	151	189
1921	232	254	1933	143	185
1923	178	193	1935	145	186
1925	179	196	1937	155	196
1927	172	196	1938	156	—

CHAPTER XVII

CONCLUSION

1. Mastery over Nature

Our knowledge of English Economic History, though not complete, is full enough to show the general trend of events. We are thus in a position to take a broad view, unhampered by changes in details. Perhaps the most important result we find is that man has gradually conquered nature, harnessing it to his own use. Savages are completely dependent on externals, as regards the normal supply of their necessities, and also the factors which limit or remove this supply.

But the " Conquest of Nature " is not a universal law of humanity; cases even occur in history when an opposite tendency exists. Some nations have been almost stationary for long periods in this respect, while others have advanced very slowly. In the more civilised European countries, however, and still more in progressive new States like America, the effect is very marked.

We cannot assume that the tendency exists in every branch of human activity, probably it is more marked in economic matters, superficially at least, than in any of the others. Necessity has compelled investigation, and self-interest has called forth inventive powers, most of all in matters concerned with the satisfaction of basic wants and also with property.

Man's mastery of nature is not unlimited. Nature's rules must still be obeyed. There are certain limits which science at present cannot even theoretically hope to pass. The most perfect machine can only do a certain quantity of work, a definite amount of power being provided; further, only a certain amount of energy exists on the

earth, and at present we can theoretically obtain only a limited amount of work from it, though the recent discovery of radium may push the limit further back.

But the control of nature is still continuing. There is no evidence that we are at the end of our resources; indeed, the further we advance the greater become the possibilities. Timber gave place to wind or water power, and these in turn to coal. The nineteenth century fear that fuel supplies were giving out was dispelled by new discoveries in England and abroad. Oil and natural gas, together with the more economical use of coal by means of electricity, have worked wonders. So has the modern use of water-power in certain favoured countries. The utilisation of the energy of the earth's interior or of the sun's rays may not always remain in the theoretical stage.

A second obstacle in the way of man's control of nature is human tradition. New ideas sink slowly into a people; hence new inventions are only gradually put into use. History continually shows human activity trying to overcome the social, religious, and political prejudices of the previous period. Theoretical knowledge is usually far ahead of practical expediency, and this lagging behind is very marked where an economic system satisfies customary wants sufficiently well.

2. Economic History a Struggle against Scarcity

Man's progressive struggle to master nature is only a particular aspect of a somewhat wider conflict, his long and constant endeavour to overcome the scarcity of the means of satisfaction of human needs. This is the thread of continuity running through Economic History from primitive times to the present day. Scarcity of the means of satisfaction in relationship to ends has been the primary motive force behind all changes in all ages.

Scarcity of the elementary necessities of physical life during certain months of the year impelled primitive man

to take the first step to civilisation by conserving his surplus of the present for future use. Scarcity was the ultimate phenomenon behind the social and economic changes of the fourteenth and fifteenth centuries, for scarcity of labour and of means of payment broke up the manorial system after the "Black Death"; and the agrarian changes of the fifteenth and sixteenth centuries may be summarised as attempts to overcome first one, and then another aspect of this principle. It was the scarcity in Europe of the intensely-desired products of the Far East after the Turkish conquests of Egypt and Syria that drove Columbus and his successors to seek new trade routes, and incidentally to discover new lands; and it was the subsequent inability of the existing means of production to supply the new markets thus created, that called into being the textile and other inventions of the eighteenth century.

The first development of the credit system, the hub of the modern economic world, during the seventeenth century, was simply an artifice to counteract the natural scarcity of metallic means of payment, and these examples may be multiplied indefinitely. In the twentieth century, in consequence of the phenomenal progress of industrial technique, the scarcity principle now operates from different ground, but it is still a reality. Means of satisfaction are still relatively scarce in relationship to ends, but the scarcity is a function of distribution, rather than of production, and the inevitable endeavour to overcome this new aspect of the scarcity principle may result in social and economic transformations of even greater significance than the break-up of the Mediaeval System at the end of the fifteenth century.

3. Relation of Economic to Political History

Economic History is not a wholly separate and independent entity, indeed its boundaries are not always easy

to determine with precision, and the direction of its course has always been influenced by political and social institutions and ideas. Mediaeval Economic History followed a particular channel carved out for it by the political, social, and indeed religious ideas of those times. The accession of a strong centralised Tudor monarchy in the sixteenth century, the shifting of the centre of gravity of political power from Crown to Parliament at the end of the seventeenth century, and the gradual extension of the franchise in the nineteenth century left a definite impression on the course of Economic History. The peculiar twist given to economic outlook by the individualism of the later eighteenth century was reflected in the order of human activities for at least two generations, and the advances in modern State theory since 1880 have been followed by consequences not less important.

This dependence of Economic History on political and social institutions and ideas is important in two ways. In the first place it demonstrates that it is possible to over-estimate the causal connection between the successive stages of historical phenomena. Economic determinism has always been a thesis attractive to many minds. There are traces of it in the ancient writers, Hippocrates, for example; and in more modern times in Bodin and Montesquieu. It received its classic exposition, however, in the writings of Karl Marx, and as a theory of the motive-force of human history it has stirred profoundly certain branches of modern thought. That continuity of development exists, as Rodbertus and Marx held, is undoubtedly true. It is not difficult to establish a positive correlation between changes in one aspect of economic phenomena with changes in others. But, on the other hand, the at least partial dependence of Economic History on social and political ideas which, in turn, are the resultant of forces not wholly materialistic, renders economic determinism untenable in its extreme form.

Secondly, it affords some explanation of the reason why economic progress does not follow a linear path, but undulates in a wave-like motion.

4. Progress

The problem of social progress is an intricate one, indeed, down to the seventeenth century such was the force of the classical tradition that the reality of progress was definitely denied. Even in the eighteenth century, the liberal-minded Montesquieu found no place for the concept in his writings, and civilisation in all its aspects was for Rousseau a decided regression.

Now, while it is true that progress can be made in economic matters without a corresponding advance in moral and social welfare, the fact that the economic history of England is a record of material progress seems difficult to dispute. Even so late as the eighteenth century economists had little difficulty in drawing a rigid line of separation between such concepts as luxuries and necessities; but to-day such a distinction is becoming increasingly difficult for articles and conveniences which were the luxuries of royalty two centuries ago are now the necessities of every cottage home. The contrast between the comforts enjoyed by the labourer of to-day and the subsistence existence of the manorial villein, or even the peasant of the eighteenth century, is so extreme that it is difficult to understand at first glance why the fact of material progress has ever been called into question.

The reason is, of course, that progress, like every other social concept, has a relative as well as an absolute aspect, and it is in the relative sense mainly that the argument that the working classes have gained little from the Industrial Revolution has any claim to validity.

Now it may be conceded that the transition from the gild and domestic systems to mechanical, specialised, and large-scale industry has not been made without sacrifice

of stability. The cumulative increasing complexity of the industrial system since 1760 has been accompanied by a delicacy of poise unknown to former ages. This is not to affirm that unemployment and destitution entered the world with the Industrial Revolution; the sixteenth century agrarian and Poor Law history proves the contrary. But the Industrial Revolution rendered these problems much more acute as, under the new order, the worker became dependent on one branch of industry, constantly liable to disorganisation through the vagaries of an international market, and at the same time he lost all control over the ownership of its means of production.

Specialisation rendered employment unstable because the failure of one link to function efficiently is sufficient to throw the whole industrial chain out of gear, and a reduction of the expenses of production due to improvements in specialised machinery is not invariably followed by an increase in demand for labour over a short period. This new industrial and social problem thus created at the end of the eighteenth century has not yet been solved; indeed, at the time of writing (May, 1933), we appear to have entered on a regress rather than on a progress with respect to this matter.

In one sense, of course, undeniable progress has been made since 1830. The worker displaced by a machine, or thrown out of employment by a trade depression, is no longer handed over to the tender mercy of a Poor Law framed in the spirit of 1834; public relief is no longer given, as then, under conditions of social disgrace. The public conscience has awakened to the fact that there is a social problem within the limits of which the individual is helpless against the forces of modern industrialism. In various ways, therefore, protection has been given and hardships mitigated to an extent which separates rigidly the position of to-day from even that of 1890.

Amelioration of suffering, unfortunately, does not

eradicate the disease. Socialists, from the beginning of the nineteenth century have thus claimed that the main fruits of industrial progress have been appropriated by a select few; that the surplus wealth created by the inventive genius and co-operative production has been seized by the owners of land, or of instruments of production.

But the argument, though not without foundation, clearly exaggerates. It is much less true than it was a century ago. In the march of events since 1800, the landowners have not succeeded in appropriating the whole of the surplus wealth as Ricardo, and building on him later, Henry George, anticipated in consequence of inexorable laws. The working population has not been driven down to the margin of physical subsistence as Malthus expected; and capital has not become concentrated within very few hands as Marx foretold.

The reason for this is that certain evils inherent in mechanised large-scale industry have been to some extent corrected by counteracting forces set in motion by the rise of political democracy. The worst evils of the Industrial Revolution were due mainly to that individualistic theory of society on which the dogma of unrestricted competition rested. As the theory of individualism receded before the rise of a more organic conception of society, later in the nineteenth century, unrestricted free play to natural forces was no longer permitted. In social theory, at least, the production of wealth as an end in itself ceased to be esteemed; not wealth as an entity, but wealth as a means to human welfare began to attract the attention of enlightened minds. The economic and social consequences of this change of front on the part of influential leaders of public opinion are too obvious and definite to be lightly passed over. Steeply-graduated taxation of income and inheritance has done much to smooth away extreme inequalities of wealth; nevertheless the fundamental problem still awaits solution.

5. History and Contemporary Problems

Does Economic History, as distinct from economic analysis, shed any light on the problem of fluctuating employment and relative poverty?

Now we have emphasised repeatedly that economic institutions, like political and legal ones, have a relative, not an absolute value, unrelated to time and place. An economic institution valid in one stage of society is often inconsistent with the conditions of another. Instances in support of this are not difficult to cull from the economic history of England. Scope for individual initiative and freedom, vitally necessary for industrial development in the period 1760-1860, was incompatible with the equally-necessary routine of the mediaeval manor. Individual freedom and the driving-force of self-interest were not in harmony with the conditions which gave rise to Tudor and Stuart mercantilism. On the other hand, without freedom for individual initiative, without free scope for the play of natural forces, it is at least doubtful if industry could have been mechanised and a world-market created at the end of the eighteenth and the beginning of the nineteenth centuries..

History, therefore, appears to confirm what Montesquieu taught with respect to politics, that economic institutions have a relative value only, a value conditioned by circumstances of time and place, and that with the evolution of other inter-dependent institutions, they too must suffer a corresponding change.

It is not without significance in this connection that several existing economic institutions have been attacked on this ground within recent years. The fundamental principle underlying the demand for the rationalisation of industry is that free competition, an admirable motive force under the industrial circumstances of the nineteenth century, has ceased to function to the national advantage in the new world conditions that have developed since 1914.

In addition to the general organisation of industry, other institutions, such as the system of credit and banking, and the gold standard, have been questioned recently on similar grounds. Behind the criticism, directed from various angles, appears to be the belief that these institutions, founded and developed in an earlier age, and under different circumstances, cannot function efficiently without modification under the more complex conditions of modern life.

6. Machinery

But the centre of interest to-day is around the recent phenomenal developments in automatic machinery. Once again, machinery and inventions have been held responsible for unemployment, not only in England but in America, where the suggestion has been put forward seriously that further developments should be prohibited for a term of years.[1]

Opposition to mechanical means of production on the ground that their introduction deprives sections of the working classes of their means of livelihood is not new. It was old when the Luddites wrecked the stocking-frames in Leicester and Nottingham in the early years of the last century. Substitutes for manual labour were viewed with disfavour by both Plantagenet and Tudor sovereigns, and the question excited heated controversy in early eighteenth-century France, where even the enlightened Montesquieu doubted the advantages of machines.

During the Industrial Revolution machinery had two distinct effects. In its early stages it not only displaced human labour, but also rendered possible the substitution of women and children for adult males. After 1830, however, rapidly expanding markets transformed the situation by creating an intensified demand for machine-made

[1] On the other hand, a pamphlet recently published by the engineering industry states that the adverse influence of machinery on employment has been greatly over-exaggerated in many branches of the metal trades.

products which, together with the rise of new industries made possible by the development of machinery, more than absorbed the labour and capital displaced.

These new circumstances operated during the remainder of the nineteenth century, and it was on this experience that the familiar arguments of the textbooks on Economics were based; and under the circumstances in which they were evolved they were sound, for they drew a sharp distinction between the immediate and the ultimate effects.

Since 1914 the situation has again changed; unemployment on an unprecedented scale is on the increase everywhere, and although innumerable reasons have been given in explanation of the phenomenon, the old belief that the continued spread of machinery must result in permanent unemployment is steadily gaining ground.

Now at first glance one is tempted to draw the old distinction between immediate and ultimate effects, and to cite the experience of the Industrial Revolution in support of the claim that the present troubles are merely a natural consequence of a further state of transition, and that ultimately, when the necessary adjustments have been made, the experience of the second half of the nineteenth century will be repeated.

On such a question it is risky to dogmatise, but this view would appear to err somewhat on the side of optimism. Unfortunately, historical events are never repeated exactly. During the greater part of the nineteenth century England enjoyed a practical monopoly of the world's manufacturing trade. That is not so to-day. During the last forty years there has been a definite tendency on the part of nations which formerly relied on England for supplies of manufactured goods to become self-sufficient. This is not altogether the effect of a new wave of economic nationalism; it is due, in part at least, to the fact that England's industrial supremacy, 1760-1880, was built largely on a foundation of accidental circumstances. That temporary

advantage we have now lost. England no longer enjoys a monopoly of industrial technique and of resources of natural power. Even when the clouds of the present world depression have lifted it is not improbable that our relative share of world trade will tend to decline, even though the volume increases in an absolute sense.

The possibility of this contingency accentuates the labour problems raised by the spread of automatic machinery, for it must be remembered that the application of science to industrial technique has barely passed the stage of infancy. Advance in the technique of production is likely to prove more rapid in the future than was the case in the past, for technical progress, after a certain point has been reached becomes increasingly cumulative. It is not surprising, therefore, that the suggestion has been advanced that a restriction should be placed on further technical progress for a term of years.

But to impose an arbitrary barrier to technical progress is impracticable for several reasons, hence the socialists claim that the hour foretold by Marx is at hand, and that society based on private capitalism must be reorganised on lines better adapted to take advantage of the wealth-producing possibilities created by developments in applied science. Under socialism, it is claimed, the continued development of automatic machinery would produce no ill-effects; on the contrary, the length of the working day could be gradually reduced to two or three hours without any diminution of the real wages of the worker.

This, no doubt, would be theoretically possible in the case of a country absolutely self-sufficient with respect to all its necessary raw materials, but few countries are in that ideal position. England certainly is not. Raw materials would have to be purchased with the export of either manufactured goods or services, so that even under socialism England would not be outside the circle of competitive international trade.

But the problems created by the rapid development of applied science cannot be shelved. Even assuming, when the world once more functions normally, that technical progress will again result in an increased demand for labour with respect to the world as a whole, it by no means follows that it will do so for this country. Just as England reaped the main fruits of the changes between 1760 and 1840 so may the benefits of the advances of the present century be appropriated by other countries better equipped with natural resources to take advantage of them.

That, of course, is conjectural; what seems certain is that so long as international trade is left either to the free play of natural forces, or to the blind prejudices of nationalism, the economic machine must fall periodically out of gear and a world depression, more or less intense, ensue.

Coordination and adjustment of economic activities to a state of equilibrium was believed by Smith, Ricardo, and Bastiat to be best effected by leaving matters to the free play of the forces of supply and demand. But the world of to-day differs fundamentally from that of the Classical Economists. It is much more dynamic; events move at a much more rapid pace. A world ruled by science, and in which the industrial classes are specialised to an extent unimagined at the beginning of the nineteenth century, can no longer sit in repose and await the working out of adjustments by the slow play of natural forces. Neither can it stubbornly refuse to recognise the increasing inter-dependence of the great majority of nations as economic nationalism attempts to do. Modern conditions demand that adjustments shall be made with greater rapidity, and with conscious purpose and calculation, and this in turn involves the recognition of the greater part of the world as the economic unit.

This is the high-light that Economic History throws on contemporary problems, and indeed, the world is being driven by the logic of circumstances to seek a more rational

and scientific foundation for its economic institutions. On the precise nature of this foundation opinions differ, but the general principle is gaining ground with parties far removed from socialism.

But the most significant recognition of a changing world was the great Economic Conference held in London in the June of 1933. However slight the immediate practical result of its deliberations may have been the Conference must prove a landmark in Economic History, for in sending representatives to it all nations recognised their inter-dependence, and the fact that economic problems transcend national boundaries. In other words, in the world of the twentieth century, a world created by chemical and engineering science, a philosophy of international co-operation and regulation is the first necessary condition for economic stability.

In applying the lessons of Economic History to present-day problems, a caution, however, is necessary. We must be very careful in generalising from changes which are now occurring; they may be exceptional. The mere fact that certain phenomena have been associated more than once in the past does not necessarily prove causal relationship. All the factors entering the one case may not be repeated exactly in the other. On this ground alone, a science of Economics is necessary if only to establish by rational analysis the causal relationships which the experience provided by history seems to suggest.

7. Economic History and Economics

The necessary connection between Economic History and Economics is obvious from the preceding paragraph. The main purpose of any branch of historical study is to ascertain if human events, considered in a particular aspect, can be brought within the scope of general laws. Historical studies are a modern branch of philosophical thought, for down to the seventeenth century, events, whether human

or natural, were generally held to be emanations of the Divine Will. Such sceptics as refused to assent to the theological explanation fell back on the alternative of pure chance, a hypothesis which, like so many others, originated with the speculative Greeks.

The theory that natural phenomena are ruled neither by blind chance nor arbitrary Divine Will, but conform to fixed laws, laws inherent in their being, entered modern European thought with Déscartés in the early seventeenth century. Rather more than a century later, Montesquieu transferred this idea from natural science to the facts of social and political life, and to Economics considered as subsidiary to politics.

Serious study of Economic History, however, did not begin until after the early nineteenth century Ricardian Economics failed to harmonise with the facts of concrete experience. The German historians, Roscher and Knies, for example, showed that Montesquieu's theory of the relative nature of politics is equally applicable to Economics. They demonstrated that the Ricardian theories were approximately true only for certain peoples at a definite stage of economic culture; hence they opposed the claim of Political Economy to represent a body of abstract doctrine of universal validity, and argued in their enthusiasm that the human mind can never advance beyond the inductions furnished by the separate study of economic institutions.

This claim is, of course, an exaggeration. Economic theory based on deductive analysis has opened a gateway to knowledge in the hands of subsequent writers; but Economic History is an essential and necessary adjunct to theory as a means of supplying realistic data from which sound deductions may be derived, and as a means of verifying suggested applications of pure theory.

But the greatest defect in the Classical Political Economy was that it shared the fundamental vice of all philosophical

systems from Greek antiquity down to recent times—that of over simplification. We know now that problems which appeared extremely simple to Bentham, Ricardo, and their circle are in reality infinitely complex, and that economic and social problems, unlike those of the natural sciences, cannot be considered independently of tradition and human prejudice, and of the state of general social culture. Economic History, the study of the evolution of economic institutions in their natural environment, serves to link pure theory to the world of dynamic realities.

Few economic theories of long standing have escaped the local colouring of the circumstances in which they took root. Economic History not only throws explanatory light on their origin, but makes clear that theories which to-day seem strangely at variance with reality were founded originally on sufficient reason.

Interest was naturally explained as the reward for abstinence to a generation in which capital could only be accumulated at the cost of efforts and sacrifice. It was natural, too, for Ricardo, writing in an age when machinery was difficult to construct, difficult to acquire, and difficult to replace, and when costs could be reduced only relatively slowly, to clothe expenses of production with an air of fixity to which demand must conform as the variable term. In a similar manner it is easy to account for the subsequent widespread acceptance of marginalism in America, the classic land of machinery "scrapping," for with the progressive advances in engineering science costs and demand not unnaturally exchanged places in the order of relative importance.[1]

Theories like the wage-fund, and the distinction between productive and unproductive labour, are intelligible only when viewed in historical perspective. They have no relation to a modern industrial society, but they are not

[1] Apart from the question of logical analysis.

without truth when applied to more primitive conditions. They were formulated by men living in an age of transition and who were constantly embarrassed with notions of society which even then were obsolete. But industrial society is in constant process of evolution; contemporary theories also, in so far as they are derived from contemporary conditions will be as remote from reality at some future date as many early nineteenth-century theories are from the conditions of the present day. Economic analysis will detect their errors, but unless the atmosphere in which they were conceived and accepted is reconstructed the explanation of their subsequent divergence from reality will be incomplete.

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