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THE EVOLUTION OF LABOUR

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PAST, PRESENT AND FUTURE

by W. R. HAYWARD AND G. W. JOHNSON



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PREFACE

We are, of course, most interested in what happens to ourselves. No matter whether the experience be pleasant or painful, we get a pleasure out of telling about it.

Not only are we interested in what happens to ourselves, but we are also interested in the experiences and adventures of others for we always feel that what has happened to the other person could have, happened to ourselves,

The time in which the events took place has very little to do with our interest provided we are made to feel that the action centred around real flesh and blood people. If the people are real and the occurrence one that could reasonably have happened to ourselves, we are interested even though what occurred be something quite ordinary and familiar.

Stories in all ages have been much in demand as a form of entertainment. In the olden times, before the time of the printing press, when very few were able to read or write, the story teller was the principal source of information as well as of entertainment. The stories told were often fantastic and incredible, but the listeners were credulous and listened with rapt attention, for they were lifted out of their work-a-day and sordid surroundings and carried by the words of the story teller to places of enjoyment and peace.

PREFACE

While we still enjoy the fantastic and imaginative, we are not satisfied with narratives of this character only. We have a desire to do more than listen to tales that are built largely out of the imagination of the writer or speaker. We have a curiosity to know something about what has actually happened to the people who have lived on this earth in the ages past, as well as what is happening to ourselves at this very time.

We have all read stories of the lives of famous men and women from the time of the earliest periods of history to the present. Likewise we are somewhat familiar with the history of the different nations that have flourished at one time or another. These stories of persons or nations have been devoted largely to the recounting of valorous deeds or the performance of some notable act.

This book is a story of peoples and nations. It is not given over to the recounting of deeds of valour performed on the field of battle, nor to the destruction wrought by robber bands in their forays on the innocent and unprotected. It is, on the contrary, a story of the struggles and labours of millions of men and women throughout hundreds of centuries directed to building up and preserving instead of tearing down and destroying. The story does not always tell of a great hero or ruler, unless this hero or ruler was a builder and a preserver. What we are and what we have to-day we owe very largely to the people about whom this story is written. These people were, and are, the workers and the planners-the men with vision and imagination whose inspiration was to add something to the comfort and pleasure of themselves and their

descendants. Naturally, therefore, we are interested in this story for it is in a large measure about ourselves. It is about ourselves because it is about our ancestors whom we very much resemble and whose experiences—no matter in what century they occurred—were exactly the same as the ones which would have occurred to us had we lived in their times.

It should not be understood, however, that the authors wish the reader to believe that our ancestors lived through the identical kinds of experiences that we are living through to-day. Far from it. Each age, each generation lives in a world that differs in many respects from the world as it was previous to any given time. We struggle and strive, often quite blindly to make and hold a place for ourselves. Ignorance is our greatest handicap. The story of the way things have been, and the gradual growth and change that have taken place in the past, will do much to make clear the meaning of the forces that control us. These forces, because they do so vitally affect our daily lives, must be understood or we shall be waging a fruitless and losing fight against them.

Failure to understand the workings of a force or system often causes us to destroy what, if understood, could be turned to service under our direction. The present economic system, as an example, is an object of hatred and distrust on the part of many. We all see its injustices and inequalities. The question that arises in the minds of intelligent men is : shall we destroy the system that has come down to us and largely controls our daily life, or shall we study it in the light of what has obtained

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in the past and see if it cannot be controlled and improved ?

It is the design of this book to give to the reader a working knowledge of the economic system under which he lives. It has no just claim to be called a work on economics; it is really an attempt to show to the reader that the subject is worth studying. With that aim in view it has not hesitated to tunnel under certain inconvenient difficulties and to bridge sundry yawning chasms in our exact knowledge. In so doing it has assumed no claim to consideration as a scientific study, but has endeavoured to follow the main outlines of the subject closely enough to leave with the reader an impression the essential truth of which will not be challenged even by scientists.

It is confessedly and deliberately an optimistic book to the extent that it holds as superstition the belief, which has gained wide currency especially among the under-privileged classes, that the capitalistic system is a contrivance of wicked men consciously designed to hold the workers of the world in eternal bondage, and not the product of an evolutionary process. And to the extent which it holds that if the mass of the people can be brought to an understanding of the rudiments of any subject, even " the dismal science," they will act upon it for themselves with more honesty and intelligence than could, or would, be brought to bear by any minority acting ostensibly in the people's behalf.

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PART ONE

If I could only persuade you of this, that the chief duty of the civilized world to-day is to set about making labour happy for all, to do its utmost to minimize the amount of unhappy labour—nay, if I could only persuade some two or three of you here present—I should have made a good night's work of it.—William Morris, The Art of the People.

CHAPTER I

WHY MEN WORK

IF the average man were asked, "Why do you work?" he would give a truthful and an unsatisfactory answer. He would say, "Because I must." There are exceptional men who do not have to work at all and who do not work. There are other exceptional men who do not have to work, but who consciously prefer activity to idleness. These might give a different answer to the question, but it would be an exceptional answer.

Yet to say, even of the average man, that he works because he must, is an answer as unsatisfactory as to say of a neighbour that he calls the doctor in because he is sick. That is understood. The question is, What made him sick? Of course, the average man must work, but why must he? Who makes him? Who says he must? Manv people are accustomed to regard the necessity of working as an evil, much as they regard disease as an evil, but they seldom stop to consider the nature of this ailment. When Mr. Jones calls in the doctor, people know that he is sick and they immediately begin to inquire, "What is the matter with him?" Is it typhoid fever, pneumonia, a broken leg, or merely a cold in the head? But when Mr. Jones goes to work, many people, who are firmly convinced that he is suffering an evil

that he would cure if he could, never think of inquiring what it is, much less where he caught it.

It is equally unsatisfactory to go one step further and say that if the average man did not work he would starve. That is, indeed, what would happen if he did not work at all. But a tramp, for instance, works much less than the average man, yet he does not starve. A savage may work even less than a tramp, yet he does not starve. The average man, if he were willing to live as the tramp and the savage live, might come as close as they have come to getting rid of the "evil" of labour.

We begin to approach an answer to our question only when we have recognized that the average man works a small part of the day to escape death by starvation, and the greater part of the time in order that he may escape living the sort of life that tramps and savages lives It is his desire to live as a civilized man, with the comforts and conveniences of civilization and as many of its luxuries as he can get.

It is the law of civilization that he who would have service must give service. This law is not always observed, it is true. A man may inherit a fortune and without contributing anything to the service of the world be himself splendidly served all his life. Generally speaking, however, it is by our own labour that we gain the right to command the services of all other civilized men. Consider a workman sitting down to supper, after a day's labour. He pays for the supper with some of the money he gets for his day's work, and that supper may represent the work of other men in adozen nations. Take, for example, one item—the cup of coffee. Labourers in Brazil, or perhaps in Java, cultivated and gathered the coffee beans. The ship that brought them to this country may have been manned by American, or Dutch, or Norwegian sailors, while Englishmen roasted and ground it and delivered it at his home. The sugar in it probably can be traced back to Cuba in the same way. Why, the very water in which it was boiled came to him by the labour of men at the city waterworks, or by that of some forgotten well-digger. Citizens of at least three, and perhaps half a dozen, nations have worked together to furnish him with that simple cup of coffee.

When Augustus Cæsar ruled in Rome and called himself emperor of the world, even he, not to mention an ordinary workman, could not command such service. When Nebuchadnezzar ruled in Babylon and called himself a god, he could command less of it than could Augustus. That is because the civilization which we enjoy was not created instantly out of nothing, but has been slowly and painfully erected by the joint labour of millions of men through thousands of years. Augustus saw it when it was far smaller and simpler than it is now. Nebuchadnezzar saw it when little of it existed except its foundations. Innumerable conveniences and luxuries have b en added to it since their time and advantages which would have been reserved for the emperor then are enjoyed by the multitude now.

But it was built by labour, it has been maintained by labour, and if it is to be carried on and improved, it must be by someone's toil. Notice, there enters again that word "must," with which we began. We work because we must; but the necessity that drives us is only in small part the necessity of getting something to eat, and something to wear, and somewhere to sleep. In far greater measure it is the necessity of getting such food and clothing and shelter as appeal to men of modern civilized tastes, which are more fastidious than the tastes of the emperors of Rome and Babylon. Our desire to enjoy this civilization that we and our forefathers have created and our desire to extend it and improve it are the spurs that goad us to four-fifths of our toil.

The manner in which men have responded to this impulse to draw further and further away from the lives of brutes and savages is the true history of civilization, in which the stories of the rise and fall of nations and dynasties, the campaigns and battles and sieges, are mere incidents, and sometimes mere interruptions. No one volume can touch more than the barest outline of it, and no library will ever contain it all, for of much of the work no record was kept and many of those that were kept for a while have long ago been lost. Nevertheless, to understand, even dimly, the world about us it is necessary to know something of what has been recorded and preserved; and surely no spectacle can be more fascinating than to watch the slow growth of the structure of civilization up to the level on which we stand.

CHAPTER II

MAN, THE MASTER

EVERY wild animal lives in a world that is entirely hostile. To the wolf, for instance, all other animals, except his mate, his cubs, and the members of his pack, are divided into two classes—those that will kill the wolf, and those that the wolf will kill. His life is spent avoiding the first class and hunting the second.

There was a time when man faced a world not less hostile than that in which the wolf still lives. Man lived in constant danger from the larger and fiercer animals; and in addition to that, he lived in danger from the elements. The north wind seemed determined to freeze him, forest fires to burn him to death, floods to drown him, droughts to cause him to perish of thirst.

Apparently without a friend beneath the sky, with all the chances against him, he set out to conquer the world. In so far as material things are concerned he has succeeded wonderfully. So long ago that no one can even estimate the number of centuries, man obtained dominion over the beasts. The elephant, the lion, the tiger, the bear, learned that this small, apright animal, so weak that any of them could easily crush out his life, was the most dangerous living thing in the world. Other animals such as the horse, the cow, and (perhaps first of them all) the dog learned that his will was that he would cure if he could, never think of inquiring what it is, much less where he caught it.

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stronger than theirs, and his intelligence too great for them to avoid him, so they had to submit and serve him. There is now no animal so terrible that man does not unhesitatingly set out to hunt it, knowing that the weapons he has made for his protection are strong enough to destroy the most powerful beast.

He is master, also, of the natural forces before which, ages ago, he cowered in terror. He has protected himself so well against the icy winds of winter that he has marched straight to the poles themselves. He has protected himself so well against the fierce sun of the tropics that he is able to live comfortably on the equator and he can make ice to cool his drink on the edge of the Sahara desert. His great ships ride safely through the most terrible storms at sea and fire has become his most valuable servant.

Over the land itself his power is equally complete. He makes the earth bear such fruits as please him, and by means of greenhouses and artificial heat he can make them ripen out of season. The mountains have become storehouses whence he takes minerals and stone to make whatever he fancies. The forests no longer terrify him with their dark mysteries. They are simply his supply for whatever he needs that is made of wood. The rivers he has made into highways, and, by means of dams and power plants, into servants who do much of his everyday work. Nothing in nature can withstand him. He has compelled the elements to combine in strange forms for his benefit. In his steam engines fire and water work together to do his pleasure. In his aeroplanes he has made iron ride upon the

wind to carry him on his journeys. In certain quarries where the work is carried on by pneumatic pressure, man has made the air rend granite in order that he may have stone with which to build his houses.

It is not quite accurate, though, to call this miracle worker simply "man," for there are plenty of men who never have learned to do any of these things. The magician is *civilized* man. Without his civilization he is such a creature as exists to-day in the jungles of central Africa, a savage living in a world which he has not mastered, prey to all sorts of foolish fears and victim of all sorts of evils which might easily be prevented.

The fundamental distinction between the civilized man and the savage is that the savage depends. almost entirely upon his own efforts to secure what he wants, whereas civilized man has arranged for the whole world to help him. The savage kills his meat for himself and eats it where it lies sometimes without even cooking it. We have already seen how the whole world joins to produce the civilized. man's simplest meal. The same thing applies to every sort of work that man does, industry, art and science. It can all be traced to its rude beginnings when one man could accomplish the whole task. It takes a thousand seamen to man the Leviathan and in addition to them it requires sixteen tugs with their crews to bring her into her dock. But the Leviathan is what civilization has made of the cance which one savage could hollow out of a fallen log and paddle for himself. A symphony orchestra in which one hundred musicians play together is civilization's equivalent for one naked jungle dweller

beating a tom-tom. Even the great Michelangelo, when he painted his masterpieces in the Sistine chapel at Rome, owed his ideas to the wisdom, the knowledge, the poetry, and religion of many nations and of many centuries. It was the wealth of ideas that he had drawn from past civilizations that made his work more varied than that of the caveman artist who thousands of years earlier used coloured clay to decorate the walls of the cavern of Mas d'Azil. Michelangelo could paint, in his picture of "The Last Judgment," all the races of the earth. The caveman could paint only such things as his eyes had actually seen, for he had not the help of other men to tell him what was beyond his horizon.

This joint labour of many hands and many minds has produced all the great and beautiful work of the world. But the co-operation that has produced civilization did not come about all at once. On the contrary, the fighting spirit that first inspired man to undertake to conquer the hostile world about him, has always been a hindrance to his co-operation with other men. His instinct, indeed, has been to fight men, as it has been to fight nature and the other animals. It is only as his reason has gained control over his instincts, that he has been able to perfect the combination with other men that has raised the race from savagery. He still has relapses when he turns upon his fellow beings and horrible slaughter results, while civilization halts and begins to decay. One such horror-the World War-occurred only recently, causing the death of ten million men. But as men have understood more and more clearly the uselessness of wars they have become rarer and rarer.

CHAPTER III

MEN BARLY LEARNED TO CONTROL ANIMALS

SINCE man's first necessity was to protect himself against wild beasts, making weapons must have been the first trade. But as time passed the hunter gradually became aware that certain animals might be tamed and made more useful to him alive than they were when killed for meat. He learned to master horses, and taught them to bear riders. He learned to control cattle.

When he arrived at this stage, the whole history of the race entered upon a new phase, which historians term the "pastoral," or herdsmen's era. Long since man had learned to control fire, and it had aided him greatly in fashioning his weapons and in protecting him against his animal enemies, as well as against cold. He had learned, also, to take the skins of animals and make garments and to construct tepees for his habitation.

There undoubtedly had been a certain division of labour between man and woman. The woman, although tremendously more strong and active than the average woman of to-day, still was inferior in strength and activity to the man; even back in the cave, to her had fallen the task of caring for the children. She probably erected the shelter of boughs, gathered the wood and kept the fire burning. Most certainly in the nomadic life it was upon her that rested the burden of keeping the family tent in order and probably also the duty of pitching and striking it. In return the man brought food to the family dwelling place, herded the cattle and drove off enemies both brute and human.

Up to this, time it is reasonable to believe that the individual man seldom wandered far from the place of his birth. When the supply of game ran short, or something else occurred to make living difficult in one region, great hordes might move over into another. In fact, this occurred time after time. But except when the tribe was driven to seek a new home by some unfavourable condition in the old one, the individual man had not much reason to wander many miles from the place where he first saw the light.

But when he came to possess great herds of cattle, all that was changed. The cattle would soon eat up the grass in any one locality ; and in order that they might feed it became necessary for man to move his dwelling regularly. Armed with the weapons he had made, and able to control fire for his defence as well as for his comfort, he was no longer obliged to seek refuge in caves from wild beasts. He could live in the open and still keep them off. Thus his home was transferred from caves and hollows under the rocks to tents made of skins, which he could easily pick up and move whenever it was necessary to seek fresh pastures for his herds.

That this mode of life had its attractions is proved by the fact that among some races it has persisted to this day. In some parts of the world there are still to be found pastoral tribes, whose homes are tents and whose food is milk and the flesh of their cattle.

MEN EARLY LEARNED TO CONTROL ANIMALS

The search for good pastures carried the pastoral groups over enormous distances. Back in the early dawn of history there are records, dim and uncertain, of movements of vast numbers of people with their cattle. These migrations, as they were called, brought hordes from central Asia into Europe within comparatively recent times; indeed, it was the pressure of such a movement that broke down the Roman empire.

But in the beginning, when the world was almost empty of human life, the tribes moved wherever the grass was most plentiful and enemies fewest. Man had long since learned that of all living things the one most to be dreaded was another man, for the weapons with which he could overcome the most formidable beasts in the hands of his neighbour, man, might be turned upon himself. Against this enemy he had to provide the shield and other weapons of defence, and to devise a whole new method of fighting. Thus warfare developed, but not as yet the special trade of the soldier. Among pastoral peoples, or nomads as they were called from their habit of wandering about, every man of necessity was a soldier.

From the earliest time the strongest and most cunning man in the group had made himself master of all the rest. But he could maintain his mastery only so long as he was able to keep down revolts within the group and beat off invasions from without. Thus, by the time the pastoral stage was reached, the chief devoted a large share of his attention to war, and in a sense became a soldier. At the same time he was also lawgiver and statesman for his tribe, so it is hardly true to say that he had developed a trade. The herdsman and the armourer were also soldiers, it is true; but they had in addition the beginnings of a craft.

In fact, men had as yet hardly begun to labour at all. They did direct their activities to particular ends to some extent, but the ends were simple and easily reached. To acquire weapons good enough to defeat a casually encountered enemy, whether man or beast, and to find good pasturage for the cattle-these were the only problems that involved planning beyond the moment. True, an occasional raid upon some other tribe for the purpose of carrying off the cattle and the women might call for a day's thought. But for the most part man's life consisted of idling along behind the grazing herd, by day, and by night sitting around the camp-fire boasting of his prowess in battle, or watching for a chance to catch the chief napping in order to end his reign with a well-placed blow or thrust, and rule in his stead.

Thus he moved up and down the world, idle as the wind, and almost as restless. In the course of these wanderings, certain of his number moved down into a broad valley between two rivers, a valley where the sun was hot upon the level plain, and where the grass grew lush out of a soil so black and rich that none more fertile has ever been found upon the earth's surface.

And for those tribes that came down between the Tigris and the Euphrates, into the land that now we call Mesopotamia, the wild, idle life of the upland ranges ended. For in that valley man discovered the use of grain, and how it might be cultivated; and with the discovery of grain, and

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the development of agriculture begins the history of civilization, as we know it; for civilization is the product of hard labour, and until he began to till the ground man had never really worked before.

CHAPTER IV

MEN LEARNED TO WORK WITH EACH OTHER

THE great river valleys attracted and held the nomadic tribes of herdsmen for the reason that on their rich plains the grass grew so luxuriantly that the herds could not easily destroy it. But remaining in one locality through the course of many seasons, man learned that the seeds of certain grasses were edible and that by tillage he could increase the amount and the quality of these grains. Thus the art of agriculture began to develop, and man was tied more firmly to the locality than ever; for he must tend his crops, and he could not do that while wandering over the face of the earth. This accounts for the fact that each of the early civilizations found its origin in some river valley.

Notable are those that flourished in the plains of Mesopotamia, between the Tigris and Euphrates rivers. At that time the sea extended much farther up into Asia than if does now, and the two rivers emptied into the Persian gulf through separate mouths. Between them civilizations rose one after another in long succession. Time after time wild tribes from the hills, nomadic peoples, swept down upon and destroyed these civilizations ; but always the conquerors remained, and built a new civilization on the ruins of the old, so in the end it was not the hill people who conquered the plains, but the

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plains that subdued the hill people. Clearly, then, the civilization of the plains, while it impaired the fighting quality of its builders, must have possessed some superiority over the nomadic life which the nomads were not able to resist.

This superiority lay in the easier, fuller, and richer life which the plains offered to the people of the hills. It satisfied their instinct to associate with their kind, it filled them with new wants, and at the same time opened the way to the satisfaction of these wants by joint effort. It was a fuller, richer, and a more satisfying life than merely wandering over the world with cattle. It developed vices, but it also developed the social virtues ; and the virtues were so much stronger than the vices that in the end they always won.

But the development of agriculture opened the way to the building of permanent dwelling places. Removal of the necessity of striking and carrying away the family tent every few days permitted men to build heavier and more substantial structures in which to live. They began to erect houses of mud, and later of bricks made of mud and baked in the fierce sunshine of that extremely hot region. These dwellings they usually placed close together for mutual protection; and because the group afforded protection, each man naturally began to regard his particular group with a certain pride and affection, the first faint stirrings of what we now call civic pride.

But this development quickly resulted in the multiplication of man's wants. For instance, having a substantial house, rather than a rude tent, to shelter him, and living permanently in a hot rivervalley instead of among the wind swept hills, he felt the need of clothing lighter and cooler than his garment of skins. He learned to make cloth, of wool and flax and hemp. But, as in the case of the arrow-maker, he soon discovered that some men were cleverer than others at these special trades; and so there came to be in every community artisans of many sorts, as well as herdsmen and farmers. There were masons and carpenters and spinners and weavers and tailors as well as armourers. The division of labour had become a fact. Men worked together to supply the needs of the community, and civilization's foundations were laid.

Once started, it grew with incredible rapidity. The step from caveman up to herdsman had taken an unbelievably long time; we have no way of knowing exactly, but it must have been measured in tens of thousands of years. Then the race remained nomadic for thousands and thousands of years after that, with hardly any change whatever in its manner of life. But from the building of the first Mesopotamian city of which we have any knowledge down to the present, measures something more than 6,000 years.

As against the incomprehensible stretches of time between the ape-like people we refer to as Neanderthal men and the inhabitants of that earliest city, 6,000 years is hardly a breathing-space. Yet in that comparatively short time man has mastered the earth and begun to reach out toward the stars. The point is that about 6,000 years ago he began to direct his activities toward a desired end, and to join his efforts to those of other men who desired the same end. The moment he reached

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that stage of development, he began to move further from the brute with a constantly growing speed; and although, by forgetting that his progress always depended upon the willing co-operation of his fellows, he has again and again suffered checks and even slipped backward, his progress on the whole has been steady and rapid.

It is next to impossible, even by the wildest stretch of the imagination, for a modern man to gain any sort of conception of what the world must have been like when that earliest city of the plain was founded. Forests covered the greater part of it, and although the great beasts, the megalosaurs. the dinosaurs and the like, whose skeletons we marvel at in the museums, had long since disappeared, those forests were infested with fierce and dangerous animals and reptiles in plenty. No road existed anywhere in the world. No ship sailed the seas. The calm surfaces of the mighty rivers were not ruffled even by a canoe, although possibly men now and then bound a couple of logs together in a crude raft. But somewhere down in the plains was an open space where the ground had been scratched with crooked sticks, and grains of wheat sown in some sort of order-pitiful, straggling fields, where skin-clad men and women. whom to-day we should look upon as more brute than human, laboured under the fierce sun. night they retired to a miserable collection of mud hovels, windowless, roofed with skins or thatch, dark, dirty, vermin-infested, wretched beyond the power of words to describe.

Yet these were the beginnings of civilization. To create them, men had willingly worked together, joining their efforts in order that each might profit by the labour of all. And in co-operating, man had turned his face away from the sod. He had sown the seed of more than wheat-he had planted civilization. Out of his pitiful fields of grain have come all the fields and orchards and vineyards of the world. Out of his cattle-tracks have come the highways and the railways that belt the globe. From his two logs bound together has come all shipping, the navies and mercantile marine, the grey battleships and the great liners that plough the seven seas. And from his collection of mud hovels have sprung all the cities and towns, great London and glittering Paris, and New York towering above her rivers as the hills towered above that trackless and dreary plain.

But of what was to come there was no faint dream in the sluggish brain of man as he went about his business in that hamlet of mud. He knew only that with the help of his fellows he had constructed a shelter somewhat better than the cave, and better than the tent of skins that the wind blew through; and that in his fields he had a surer and easier means of livelihood than he had found in wandering with the cattle in search of grass.

CHAPTER V

HOW THE ANCIENT CIVILIZATIONS DEVELOPED

I is by no means certain that the civilization, or the various civilizations that followed one another, in Mesopotamia brought into being the first city-empires. Older civilizations perhaps existed in eastern Asia—in India and China—but their course of development was generally speaking, the same. They rose from the same sort of causes, flourished by virtue of the same sort of efforts, and collapsed on account of the same sort of weaknesses; so a study of the course of events in Mesopotamia will give one a fair idea of the sort of thing that went on in every part of the world in which a civilization was founded.

The remains that have been dug up by archæologists prove that in the beginning the so-called cities were collections of rude hovels of mud; but they did not long remain so. Once men had learned the value of co-operation and division of labour, leaving to each the business of doing the thing that he could do best, their progress was exceedingly rapid. So the collections of mud hovels quickly developed into real cities, substantially built and protected by strong walls, which soon replaced the flimsy barricades of brush or wooden posts which were probably the first protection. All sorts of industries developed, an extremely important one being metallurgy, that is, the working of metals by the aid of fire.

But along with the new ideas of mutual aid and the division of labour that were so rapidly building up and enriching their lives, men were developing another idea that they had brought with them from the nomadic life, and even further back, from the days when they lived in caves and subsisted on the flesh of wild beasts. That was the idea of chieftainship, which later grew into the idea of government. In the old days, children had followed their father, because he was wiser and stronger than they were, and could compel their obedience as well as furnish them protection. This custom was carried on into the nomadic life, when each wandering tribe consisted first of a family group, headed by the father, or patriarch. And, finally, when men gathered into towns they were already accustomed to the idea of following a leader. If they had not had the idea before it would have been necessary for them to evolve it, for the protection of the whole community depended upon obedience by the weaker and less experienced of the orders of the stronger and wiser; and the strongest and wisest man in the group naturally became the leader of all.

In the beginning this was not only the sensible thing to do, but quite clearly the only thing that could insure the survival of the whole group. But since men have always been more inclined to insist upon their rights than to magnify their duties, the chieftains easily fell into the habit of paying more attention to the obedience they could exact and the services to which they claimed a right than to the protection and leadership they owed the community. Probably they always looked upon that side of the relation between them and their people, rather than upon the other.

But as the wandering tribes settled down into towns, and as the towns grew into cities strongly fortified and capable of being easily defended, the immediate necessity of the chief's valour and wisdom to the protection of all his followers grew less and less distinct, while the chief's saw to it that the idea of service due to the ruler grew more and more firmly fixed.

We have no direct proof of this. We can only guess at the process by which the chief obtained his power. But we know enough to declare flatly that in the beginning of history the chief was believed by his people to possess more strength and cunning than any of his followers. Part of the strength and cunning of the chief was doubtless imagined by the people. Frequently they had the idea that he was a god, and nearly always they were sure that he was on intimate terms with the gods. Thus to raise a hand against him was regarded as sacrilege, as well as treason.

Furthermore, as the group, originally consisting of one man, his wives and children, grew larger and included others related distantly, if at all, to the chief, his interest naturally restricted itself to the group immediately surrounding him, and that little group, in turn, found itself in better position than any other to seize the power of the chief when he died. Thus gradually emerged the notion of hereditary sovereignty and ruling families. The chief became a king, who ruled the city not on account of any unusual prowess or wisdom that he had exhibited, but simply because he was the son of a mar who had originally gained power by his own exertions

After the group became larger than a family and began to take the form of a tribe, other men began to appear whose strength was nearly, if not quite, equal to that of the leader. It would not do for the chief to attempt to kill them off for two reasons, first, because they might kill the chief instead, and, second, because the chief needed their help in battle against other tribes. Therefore he shared part of his authority with them. They became lesser chiefs under the big one, or, to give them familiar names, noblemen under the king. But nobility, like royalty, became hereditary. After a while men were recognized as noblemen, not because they had proved themselves particularly strong, brave and skilful, but simply because they were sons of noble fathers.

The nobility, of course, owed service and obedience to the king; and the commoners owed obedience and service to the nobility. On the extreme outer edge of the circle were those who owed service and obedience to everybody and who could claim it from nobody. Their condition constantly grew worse, until from weaker, but still measurably free, members of a communal group they sank to the estate of slaves, whose very bodies were held to be the property of their masters. Even their claim to protection as a return for services rendered was lost, and their protection became merely the interest of their master. He needed their labour ; therefore he protected them, but not in recognition of any right for they were considered to have none.

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But it is to be noted that as royalty inhered in one man, and nobility in the group around him, the nobility were much more numerous than those of royal blood, while the gentry were more numerous than the nobility. The commoners, whose estate was little different from that of the out-and-out slaves, were most numerous of all.

This development was of extremely slow growth, yet it occurred before recorded history began. The earliest records we possess show that the system was already full grown thousands of years before men learned to write. Mr. H. G. Wells, in his "Outline of History," has illustrated it by saying that if the time between Columbus and ourselves be represented by a line three inches long, one would have to walk 55 feet to reach the painters of the Altamara caves, who undoubtedly had chiefs, but probably not hereditary chiefs. Mr. Walter Lippmann remarks that when chronology, that is, the more or less accurate measurement of time, begins Hammurabi had been dead a thousand years ; and Hammurabi was no petty chief, but a very great emperor, who ruled a huge domain, maintained a large and magnificent court, and had had written an elaborate code of laws for the governance of his subjects, who are therein carefully graded, from the princes royal down to the slaves.

Thus in the very beginning of history we find that a large proportion of men were compelled to work for the benefit of others, without any adequate return. The earliest civilizations of which we have any record already had in them the germs of their own decay.

CHAPTER VI

MORE ABOUT DEVELOPMENT OF ANCIENT CIVILIZATIONS

X THETHER we examine the record of this Mesopotamian country we have chosen to consider in the pages of written history, or in the reports of the archeologists who have dug about in the ruins of its cities, one thing stands out conspicuously-the astonishing number of peoples who have ruled the country. The sites of the ancient cities are now for the most part merely huge mounds of earth ; but scientists, digging into the mounds, have discovered traces of one city, then of an earlier one under that, of a still earlier one at a still lower level, and so on through perhaps a dozen layersevery layer representing a city that was once imperial, and that flourished perhaps for centuries. We have written records, fairly trustworthy, of many empires -the Sumerians, the Cassites, the Assyrians, the Hittites, the Chaldeans, and many, many more.

With innumerable variations, the process in general seems to have been as follows : a nomadic tribe drifted into the lowlands by the great rivers, established, first villages, then towns, some one of which, by reason of a better location or a shrewder and stronger chieftain, or both, gradually came to assume power over the others and grew into an imperial city. For a while it would flourish, extending its sway far and wide, becoming constantly richer and apparently more powerful; certainly perfecting

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and enriching its civilization. Then hordes of other nomadic tribes from the hill country would sweep down upon the city state, defeating its armies, storming its fortresses, breaking down its walls, massacring a great part of its inhabitants and plundering its riches. But the invaders seldom withdrew. On the contrary, they were attracted by the life of the plains. From the surviving inhabitants, whom they usually made slaves, they learned the arts and sciences of peace. They settled in the villages and towns. Eventually they rebuilt the city on the ruins of the one they had destroyed. Then they began to extend its sway over neighbouring territory, and to increase its riches and apparent power until it was greater than it had ever been before. At last they would succeed in erecting a civilization probably superior, on the whole, to the one they had all but obliterated. This, generally, would require some centuries. Then, when the valley civilization had reached or surpassed its former glory, down would come new hordes of nomads from the hills, sweeping everything before them, and the process would begin all over again.

No one is able to say exactly how many times this happened in Mesopotamia; and a process of the same sort occurred in every other region that possessed an early civilization.

Now the remarkable fact about this oft-repeated process is that while the people of the plains were invariably conquered by their stronger and fiercer invaders from the hills the plain itself invariably subdued the hillsmen. They could not resist the fascination of the valley life. It was so clearly superior to their own that they almost never returned to the hills, but settled down to rebuild what they had destroyed.

How, then, did it happen, that, although the people of the plains were better fed, better clothed, better housed than the invaders, they invariably proved weaker as a people and unable to defend themselves against the assaults of the fierce hill tribes ? Fighting in those days was a man-to-man and hand-to-hand affair, victory going to those who were able to wield sword, club or spear with most strength and agility. Why, then, were those whose strength should have been better developed by better food, and better preserved by better care, consistently poorer fighters than their opponents ?

The explanation is that they had so organized their way of living that they could not use what they had to best advantage. The cities did fail, in the long run; but we must not forget that for years, sometimes for centuries, they beat off every raid, and frequently flung their armies into the hill country, defeating and scattering the tribesmen. As long as all the intelligence, as well as all the strength, of the city could be brought to its defence, the invaders were powerless against it. But always the time came when the defence of the city was stupidly planned or feebly conducted, and then the larger numbers of the hillmen counted, and one more civilization went down before the barbarians.

Of course, there were occasions when all the valour and skill of the age could not prevent the disaster. For instance, when some great plague had killed off large numbers of a city's fighting men, it is easy to see why the tribesmen won. But

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the thing happened so often and so regularly that it cannot be explained on that ground alone. Clearly, there was some defect in the cities themselves, some slow poison that gradually worked through the whole system and weakened it until it was unable to withstand assaults from without.

This poison was the tendency of the civilization of the cities to put men in command for some other reason than the fact that they had proved their fitness to command, and to hold down better men for some such foolish reason as that their fathers were not noblemen. If every great king's son had been himself a great king, those cities might have been standing to this day. Or if the citizens had been able to devise a system whereby, when the king died the greatest living citizen was chosen as the next king, even if his father had been a slave, they might have stood. In some cases they did try it, but they never could make it work long. In every instance the time eventually came when all power was gathered into the hands of a few, who passed it on to their children and friends, while the great mass of the population was without hope of ever entering into that charmed circle. In other words, civilization took the division of the population into two groups, a few masters and a great many servants, and so arranged things that it was nearly, or quite, impossible for a servant ever to become a master,

As we have seen, this division already existed among the hill people, where the tribe generally had one principal chief, several lesser chiefs, and a great number of followers. But the adventurous life of the hills, with its constant danger and its incessant fighting with the city dwellers and with other tribes, made it possible for any bold and intelligent fighting man to attract followers and become a chief himself. In consequence, the hill tribes were nearly always led by the best general they had, while the armies of the plains were not less frequently commanded by men who had little natural ability as fighters and owed their position to the fact that they were the sons, or the particular friends, of some king or great noble.

In the end the superior equipment and discipline of the plainsmen could not offset such a disadvantage, and they were overwhelmed by the tribesmen's numbers.

However, this rise and fall of the ancient empires was not quite the senseless repetition that it seems from this account. Always from the wreck of each civilization something was salvaged for the enrichment of its successor. Not much has come down to us with certainty regarding the arts and sciences of those almost forgotten peoples, but we know that they developed some of them to an astonishingly · high degree. The ruins show that their engineering science, for example, was amazing. They erected temples and palaces and fortifications so large and beautiful and strong that our modern engineers cannot imagine how the work was done with the tools we suppose them to have had. In the late war the Turks and British fought over that same ground, and one of the battles occurred at a place called Ctesiphon, where there are some ruins of this time, in particular an arch so wonderful that the British artillery officers directed their gunners on no account to fire in that direction for fear of destroying the marvel,

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They developed also metallurgy, mentioned above, as well as wonderful skill in pottery, weaving and dyeing, and many other crafts.

They had discovered, furthermore, that all labour does not consist in producing goods. They found it necessary to give over to certain members of the community the labour of bringing the goods to the man who needs them and is willing to give something of value for them. Thus commerce was born, and the merchant took his place in the list of recognized workers. The merchant quickly discovered, in his turn, that his business would be intolerably tedious if he attempted to conduct it solely by barter, that is, the direct exchange of the product of one's labour for that of his neighbour. The man who had an ox, for example, but no bowstring encountered a difficulty when he met a merchant who had bowstrings which he was willing to exchange for beef. Suppose an ox to be worth a hundred bowstrings. The owner of the ox had need of only one bowstring; what was to be done about the other ninety-nine? Obviously nothing, unless something could be discovered which was so generally desired that the owner of the ox would accept it in place of the other ninety-nine bowstrings, knowing that he could exchange it with the next man he met for whatever else he might desire. Such things were discovered, and came to be universally used for trading purposes. Thus what we call money came into being. The earliest known forms of it were merely chunks of iron. Many other things were used at various periods of the world's history, but the most popular forms finally came to be gold and silver.

THE EVOLUTION OF LABOUR

These ancient civilizations of Mesopotamia have passed leaving remarkably few traces on the history of the world. Commerce, and its indispensable adjunct, money, still exist, it is true, but it cannot be said that we owe these things to Mesopotamia. It is by no means certain that they were first invented there. The code of Hammurabi has recently been discovered, but all the principles of law that it contains had long since been worked out by other nations. Indeed, about all that remains of these powers that were once supreme in the civilized world that is still of value to us is that first lesson that they afforded that a state needs the services of all the intelligent men in its population, and that restricting power to a few chosen by the accident of birth leads to ruin.

CHAPTER VII

WHEREIN ANCIENT EGYPT WAS A LEADER

WE approach now a civilization that in point of time perhaps should have been considered first—ancient Egypt. The country in which it rose is also a valley, that of the river Nile; and as far back as we are able to trace its record it was already swarming with humanity, and its civilization was as far advanced as that of any of the Mesopotamian empires.

As every schoolboy knows, the Nile overflows its banks in the spring and leaves on the fields a deposit of sediment which makes those fields among the most fertile in the world. The ease with which grain could be grown there accounts for the early settlement of Egypt, and also for its immense population; for the rich fields produced enough food for an enormously larger number of people than could be supported on any other area of the same size in the world, with the methods of tillage then in vogue. These facts explain not only the early rise of Egyptian civilization, but also its continuance in spite of the wreckage of tremendous wars and conquests without number. Furthermore, Egypt was more easily defended against wandering nomads than was Mesopotamia. A successful invasion of Egypt called for more strategy than a savage chief of still more savage tribes possessed. Egypt was conquered many times, but always by

civilized or semi-civilized armies, which modified her civilization profoundly, but did not sweep it away to the extent to which the civilizations of the Mesopotamian cities were swept away.

Consequently the Egyptians had an opportunity to accumulate the wisdom of the past. It was not necessary for them to rebuild from the ground up after every few generations. Furthermore, they had invented the art of writing, whereby the experience of their fathers was preserved for the benefit of the sons. Therefore it is to be expected that their civilization had advanced beyond that of the Mesopotamian peoples.

So, while they established the state, with its orders of men graded down from the monarch to the slave, earlier than did the Mesopotamians, and in a history of the world are always considered first, that was not their characteristic contribution to the directed activities of men. Like the Mesopotamians, they divided their work and accomplished gigantic undertakings by the joint labour of many hands. But in the comparative peace and security of their existence so well did they plan their work, that they were left with a certain leisure on their hands. Along the Tigris and Euphrates men had been compelled to think, when they built their city-empires; but they directed their thinking to well-defined and limited ends. They thought about how to strengthen a wall, or how to improve a method of weaving, or how to construct a lighter and swifter boat. Their thought was invariably followed by action; it was merely the necessary preliminary to action. And in the strenuous existence of those early days they never carried it much further.

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The Egyptians are the people who seem first to have realized that a man might work without using his hands at all. It is possible they had the first priests, men who had usually come to power by preying upon the superstitious fears of the common people. They were among the first to have that class of men whom to-day we call brain-workers. Often they were priests also, for all priests were not merely cunning fellows who had taken advantage of the ignorance of the followers to gain an easy living. Sometimes they were kings. So far back in Egyptian history that modern scholars are not able even to settle the date of his birth within two thousand years there was a man named Teta who may have been either a high priest or a king, or possibly both, and who is supposed to have written a treatise on medicine and anatomy. Obviously, producing something of that kind is quite different sort of labour from producing arrows, or armour, or bricks. Savages have no notion of the value of such a thing, and therefore no respect for the man who produces nothing else. A nation must have advanced far in civilization before it can appreciate work of that sort. To this day the ignorance of some men can be gauged by their contempt for the man who works with his head instead of with his hands. Such men have not advanced much further in culture than had the people who lived in the Mesopotamian valley thousands of years ago.

This development by the Egyptians of respect for intellectual, as well as for physical, power resulted in carrying their civilization far ahead of that of the rest of the world. They worked out the first arithmetic, and from that they proceeded to higher mathematics. With their mathematical skill they learned to compute time, and so gave us the first calendar—a calendar drawn up so accurately that with a few changes it is in use to this day. Their engineers, equipped with the same learning, were able to calculate weights and stresses and strains better than any others, and so to build the largest and strongest buildings then existing in the world—buildings so strong that they have lasted through all the thousands of years down to our own time, and so prodigious that they excite the wonder of our most skilful engineers to-day.

But slavery was as important a factor in the Egyptian civilization as in any other. The Egyptians learned to respect mental labour, but they showed no marked respect for any other kind. Through more than thirty dynasties-not individual kings, or, as they called them, Pharaohs, but dynasties-Pharaoh vied with Pharaoh to see who could erect the most gigantic monuments to his own greatness. The armies of Egypt swept over into Asia, and after every conquest brought back hordes of captives, who were forced to work under the lash at building these monuments. To them were added even greater numbers of native Egyptians. More than_ 100,000 wretches toiled to erect the Great Pyramid, which was raised to serve as the tomb of the Pharaoh Cheops. Two thousand years later the Pharaoh Necho undertook to dig a canal to connect the Mediterranean with the Red Sea and gave up the effort only after 120,000 of his slaves had died at the task.

This policy served as long as it was possible for

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Egyptian armies to raid Nubia or Asia whenever they pleased, and bring back scores of thousands of prisoners to toil under the whips of the king'soverseers. But in the meantime other races were growing ever more powerful and intelligent. The Chaldeans, for example, were able mathematicians, and Nebuchadnezzar, the most famous of their kings, was also a liberal patron of the sciences. Our modern astronomy is based on principles discovered by the Chaldeans. Presently the Egyptian armies were meeting forces as strong as their own and were no longer able to bring back hordes of prisoners. Mesopotamia grew ever more powerful, and in the end Assyria overwhelmed Egypt. The struggle continued through centuries, with several fitful gleams of glory for Egypt ; but she constantly declined, and fell at last under the Persian Cambyses to rise no more as a world power.

Egypt gave the world its first hint as to the power of man's brain. That is her contribution to the history of work. But she depended upon forced labour to have her ideas carried out, and upon the loot from foreign conquests to pay for it. Thrown back upon her own resources she dwindled and collapsed. Yet it was inevitable that the supply of loot should be cut off as soon as the intellectual power that Egypt had discovered was applied by other nations to expand their own strength. Furthermore, Egypt developed the same fatal

Furthermore, Egypt developed the same fatal tendency that had ruined one Mesopotamian citystate after another. In the course of time, the upper classes fell into the error of believing that the way to maintain their position was by rigidly holding down every member of a lower class, no matter how able he might be. Civilization became fixed and immovable. A man born a priest remained a priest, whether he was naturally fit for the priestly office or not. A man born a slave had no hope of improving his condition. And soon unfit men were ruling the land and commanding the armies, simply because they had had rulers and commanders for their fathers.

The worst part of the slave's condition is not that he has to work hard for a bare living. Many slaves have not had to do that, yet have lived miserably. Many freemen have had to do it, yet would have been horrified at the idea of changing places with the idlest slave. The worst of slavery is the slave's realization that he can never change his condition by his own efforts. Fasten men down to one class, one occupation, one condition of life, and make it impossible for them ever to change, or even to hope for change, and you have made them in the most important particular no better than slaves.

This the civilization of Egypt finally did, as also did the civilization of Mesopotamia. In Egypt, too, it led to ruin.

CHAPTER VIII

JUST A REMINDER OR TWO

LONG before Egypt grew to be a world power the methods by which the work of the world was accomplished had been fixed. Men were always making better and better tools, and they had discovered the main principles of mechanics, which is the science of transmitting and applying force at the point and in the direction that the engineer desires. They had invented machines which employed in many varied and complex ways the principles of the spring, the first instance of which was probably the bow, centrifugal force, used in the sling, the inclined plane, of which the screw is an example, the wheel and the lever. But although they had many wonderful machines, they had only one sort of power to drive them-the muscular strength of men and animals. If the Pharaoh Necho had had a steam-shovel or two, he might easily have dug his canal without sacrificing 120,000 wretched slaves in a vain effort to do so. But while complicated and powerful machines came into use nearly two thousand years before Christ was born, the art of using the forces of nature to drive them, except in such crude forms as water wheels and windmills, was not to be generally applied until nearly two thousand years after his birth. Thus for nearly forty centuries the manner in which men worked changed not at all in its main

outlines. The method was to make as good a machine as possible, then hitch enough men or enough horses or oxen to it to make it go. But there was a limit to the number of men, or horses, or oxen that could be hitched to one machine; and a still narrower limit to the number that could be fed and housed profitably. When you stop to think that it takes an engine with the power of 250 horses to run a rather small sawmill, it is easy to see why the ancients could not use any heavy or powerful machinery, even if they had been skilful enough to make it.

Therefore, in studying how modern people came to work as they do, there is not much to be gained by paying attention to the details of what went on in these forty centuries. Empires were founded, rose to power and fell again. Great kings organized armies that none of their neighbours could resist, fought innumerable battles and campaigns, and over-ran the world. But whether the ruler happened to be Rameses II of Egypt, or Nebuchadnezzar of Babylon, or Alexander of Macedonia, or any one of a dozen other conquerors made little difference to the common people. They worked on as they had always worked, millions of them as slaves under cruel taskmasters, and millions of others but little better than slaves. The common man was not regarded at all by the great, except for his physical labour as a slave, or his physical strength as a soldier in the army of some conqueror.

Nevertheless, although the main lines of men's work were already fixed, there were certain great movements that occurred in that long period before the coming of steam that had a profound effect on the lives of all the generations that followed, and that affect our own lives to-day. These we must look at briefly before we turn attention to what happened after the harnessing of steam.

The first of these was the rise of Greek civilization. Within the small territory that is to-day the kingdom of Greece there arose, about twenty-five centuries ago, a number of small city-states somewhat similar to those we have noticed in Mesopotamia. None of them was as large as the great Mesopotamian cities of Nineveh and Babylon, and their armies never threatened to conquer the known world, except for a short time when they were under the command of the military genius from Macedonia, Alexander the Great. In fact, most of their wars were waged against each other.

All the same, the contribution they made to civilization was so important that it ranks with that of the largest and most powerful nations of the ancient world, and in many respects has never been equalled by that of any other race, before or since. The cities of Greece taught men many things of which they had never dreamed before, and in particular they developed to a high degree two special types of workers, the philosophers and the artists.

The questions, What is a philosopher ? and, What is an artist ? are among the hardest that men have ever tried to answer. The English word "philosopher" is made up of two Greek words that together mean "a lover of wisdom"; while "artist" meant "workman," as the quite similar word "artisan" still does. But as a matter of fact both are workmen. They are a great many other things as well, but at bottom they are workmen.

The Egyptians had already discovered that a man who did no work except to think things out for his neighbours might, if his brain was sufficiently active and strong, be of more importance to the community than the cleverest artisan. They found that they had a hundred men who could do things for every one who could tell the hundred what to do and how to do it. So far as the records show, they were the first people to lay much emphasis on what we call pure reason, that is, thinking things out without any intention of acting immediately upon the thought. The Greeks carried this idea further-much further than any nation that had preceded them, and in some respects further than any nation that has followed them. They produced many of the greatest thinkers that the world has ever known.

It is quite impossible for us to imagine what that meant to the world, because it is quite impossible for us to imagine how hard it was for men to learn to think about anything except the business in hand, to think as we say now, in abstract terms. Try as hard as we may, we can gain only a vague idea of the slowness and difficulty with which men's minds worked in the beginning. What they learned they learned almost entirely by experience. For instance, all the peoples who inhabited Mesopotamia, as well as the Egyptians, knew that when a brick mason builds a wall he must be careful to lay each brick exactly on top of the wall below it, so that the wall be straight; for if it is not straight, it will fall down. But they learned that simple lesson by observing that every time they built a crooked wall it did fall down. When they observed that crooked walls fell, and thereafter built straight ones, they used reason. But that is not what we mean by pure reason. It was not until thousands of years later when, in the far-away country of England, Sir Isaac Newton observed an apple drop to the ground, that pure reason was applied to the p oblem. Sir Isaac did not employ his reason devising some way to make apples stay on the tree. He did not care whether they fell or not; but he did care to know what made them fall. Therefore he set himself to the task of finding out what made them fall, and ended by discovering the law of gravitation.

Sir Isaac Newton was a philosopher. His studies of the laws that govern falling bodies were among the hardest work ever done by man; but it was brain work, and it was not devoted to the solving of any particular problem, such as making a brick wall stand up, or making apples stay on the tree. All that he wanted was to find out the true reason why when you take away its support from something heavy it falls. Nevertheless, when he had discovered the reason other men were able to apply what he had found out in a thousand practical ways. So in the end, although he merely sought for the truth, his work became extremely important to all the rest of the world.

For some reason which nobody can explain Greece produced many thinkers of that kind. They reasoned about the laws of nature, about the movements of the sun, moon and stars, about themselves, what they were and where they came from, and

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about what happened to them when they died. They thought about the mind itself, and presently discovered that there are rules that govern thinking, just as there are rules that govern any other work, such, for instance, as building a brick wall. They worked out these rules and gave us the science of logic. They worked them out so accurately, indeed, that although the principles of nearly every other science have had a great deal added to them and a great deal that was later discovered to be false taken from them, the rules of Greek logic stand unchanged to this day.

CHAPTER IX

WHEREIN WE ARE INDEBTED TO THE GREEKS

THER nations than Greece had both philosophers and artists; but those of Greece were the greatest that had lived up to that time, and some of them are among the greatest that have ever lived. Their work has affected the lives of all the people who have lived since, and still furnishes encouragement and guidance to us to-day. The philosophers showed that our every-day work is governed by universal laws, that is by laws that always and everywhere act the same. They showed that if those laws are understood by the workers the work can be done better and more easily than it could be done by a man who in his ignorance might work against them. And finally by discovering and applying a great many of the laws they encouraged men to believe that in the course of time they may all be understood. On that theory men have been working ever since. This very book, indeed, owes much to the Greek philosophers, for what would be the use of learning how the work of the world has developed unless there were reason to believe that by learning the rules that seem to have governed work in the past, we may be able to do better work and do it more easily in the future?

The work of the Greek artists has been equally important to the world, but in another way. Take, for example, what they learned about building houses, that is, their architecture. Other peoples, notably the Egyptians, had learned how to construct excellent buildings. At the height of Egypt's power some of her temples were built so strong that their walls and columns remain standing to this day, and so large and imposing that their aweinspiring appearance was famed throughout the world.

But the Greeks erected buildings that were small, and yet so beautiful that their fame eclipsed that of the great, gloomy temples of Egypt. On a fortified hill just outside of Athens there are the remains of a building so beautiful that it has never been surpassed in all the history of architecture. It was a temple called the Parthenon. It was not large, but it was so excellently built that it stood for more than two thousand years, and was still a good building until about three hundred years ago, when it was blown up by a shell in a battle between the Venetians and the Turks.

What makes the Parthenon so beautiful? It is what the architects describe as the perfection of its proportions, which means neither more nor less than good work. Ictinus, the architect, was called upon to erect a building on a certain site to be one of a group of buildings which Pericles, ruler of Athens, designed to be the chief ornament of his city. Ictinus had certain definite rules to follow : in the first place, the building must be large enough to be impressive among the other buildings, but not so large that it would overshadow them all; and in the second place, since it was to be Athena's temple, it must be such a building as would be pleasing to the goddess of wisdom, whom the

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Athenians worshipped. After Ictinus had designed his building, the work of decorating it was entrusted to the greatest sculptor in Greece, named Phidias. His task was to make the decorations worthy of the building and its setting.

How Ictinus worked out the proportions of his building, and how Phidias managed to think of just the right lines for his carvings, are mysteries that nobody can explain. The fact is that each did his part of the work so nearly perfectly that nobody else has ever done better; and that sort of work we call a work of genius. But this much we do know : each man loved to do the sort of work that he was called upon to do, and gloried in it, and strove his best to bring it to perfection. And when a man loves his work for its own sake and spares no pains to make every job that he turns out a perfect bit of work, he is an artist and his work is a work of art. Its greatness depends upon the skill of his hands, to some extent. Ictinus and Phidias were extremely skilful workmen, and among the most brilliant men of their day; but even so their work would never have been supremely great art had they not loved it and laboured at it with infinite pains.

But Greek art did not stop with sculpture and architecture by any means. The Greeks had poets and playwrights of such ability that no other nation of that day whose work has been preserved can compare with them, if one excepts certain poets of ancient Judea. They had, too, dancers of exquisite grace, as we know from sculptures of dancing figures that have come down to us. They had painters, most of whose work has been destroyed by time, but who were certainly clever; although the art of painting did not reach its greatest heights until some centuries later.

Let it be repeated for emphasis that Greece was not the only nation that had produced art and philosophy; but these particular activities of man were brought to so high a state of perfection in Greece that it is fair to state that she introduced to the world the artist and the philosopher.

Nevertheless, important as were the hints that she gave, Greece fell far short of solving the problem of fitting every man into his place in a perfectly ordered world. Not all Greeks were artists or philosophers. On the contrary, these men were only a small group in the nation, and the average man, even in the age of Pericles, when Athens rose to its greatest glory, lived a pretty hard life. The Parthenon might rise, the plays of Euripides might be the sensation of the hour, Socrates might be teaching his philosophy to a favoured group of youths, but that touched the life of the ordinary man but slightly. Even Plato, greatest of the philosophers, when he set about imagining a perfect government, included human slavery in his scheme of things. It was still believed, by the highest as well as by the lowest, that it was divinely ordered that a great proportion of mankind should work for ever without reward, and that freedom was the privilege of the few, not the right of all.

The freeman in the Greek cities had the right to vote, but little care was taken to train him to vote intelligently. The consequence was that he fell under the sway of the man who could make the cleverest appeal to his likes and dislikes, what we call his prejudices. There sprang up a race of

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politicians who were wonderful orators, but who cared little whether what they told the people in their orations was true or false as long as it served to win votes for the orator. The Greeks made a name to describe these flatterers of the mob which has stuck to such men ever since. They called them demagogues. This was a third contribution to the activities of men and one that might better not have been made. But unfortunately it, like the other two, has persisted to this day; so that one may say that from Greece first came three types of men who have affected the lives of all people powerfully ever since, two of them for good, the third for evil —artists, philosophers and demagogues.

The demagogues, however, captured the rulership of Greece, and, intent on serving their own ends, rather than those of the people, ended by involving Athens and Sparta, the two leading cities of the land, in a long series of wars that broke down both of them, and left them powerless before other nations. Greece had developed at the top more wonderfully than any other nation up to that time. But she had not developed correspondingly at the bottom, so her greatness was top-heavy and insecure. Her people were bound in a new kind of slavery -slavery to their own passions, prejudices and ignorance, with the demagogue for their master. But although it differed in kind from the slavery of the Israelites under the Egyptian Pharaohs, it was none the less fatal, and it sent Greece into the oblivion that had swallowed Babylon and Egypt.

CHAPTER X

THE PHŒNICIANS WERE THE ORIGINAL TRAVELLING SALESMEN

THE extreme slowness, the painful slowness, with which the simplest principles of life were learned by our forefathers will not astonish us if we make some effort to realize the conditions under which they lived. For instance, any reader of this book can go into the nearest library and examine the Code of Hammurabi, the Babylonian king, in an English translation. That Code contains so many excellent ideas that one wonders why all the law-makers who came after Hammurabi did not adopt a large part of his Code bodily, instead of trying one tedious and fruitless experiment after another, only to come back to Hammurabi's principles in the end.

What we forget is that, although the Code of Hammurabi was written in ancient Babylon, in so far as lawmakers of other nations are concerned it is a production of the last few years; for with the fall of Babylon all trace of the Code was lost, and it was not rediscovered until recently. The Hebrews, and perhaps the Greeks, had written into their own laws some ideas gathered from the Babylonians; but they had no opportunity to go carefully over the whole Code, as a modern lawmaker is able to go over the entire Code of any civilized nation from which he thinks he may learn something.

PHœnicians Original Travelling Salesmen

Modern science has almost done away with time and distance as restraints of human progress ; but that task has been accomplished within the last century. When Pope Pius X died in Rome, the news was known in San Francisco within ten minutes ; but when the Treaty of Ghent, ending the war of 1812, was signed on December 24, 1814, the news was not known in America in time to prevent the bloody battle of New Orleans, on January 8, 1815. If some great thinker should discover an important principle to-day, by to-morrow night the idea would be known to newspaper readers all over the world. But when King Hammurabi, of Babylon, thought of his Code, there were no such arrangements for spreading ideas as radio, telephone, telegraph and cable lines, newspapers or even printed books. The Code of Hammurabi, in its original form, was not printed. It was scratched with the point of a sharpened instrument in wet clay, and the clay was afterward burned hard. Thousands of years later these bricks were found buried in the rubbish of old Babylon; and from them scientists translated the Code into English for us to read at leisure in our libraries.

Now it is plain enough that, even if the king had been willing to let other nations know how he ruled his subjects, a book of which every page is a brick cannot be carried about by travellers; so it is not surprising that Hammurabi's idea never got beyond the boundaries of his own country.

Over in Egypt they improved on the idea of the brick books, for they used the stems of a certain sort of reed, called 'papyrus, to make a fabric that was the forerunner of our modern paper. The

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papyfus came to the scribe in long strips, and whatever he had to set down he wrote by hand, rolling, as he wrote, the strip of papyrus on a round stick, exactly as a window-shade goes on the roller. These scrolls, as they were called, were the only books known in the world for thousands of years. As every copy had to be written out by hand, which was a long and tedious process, books were rare and expensive. Furthermore, as each copyist making a new copy of an old book was liable to err in his reading, even when he did not deliberately insert observations of his own in place of what the author had written, in the course of time the versions of many books that in the beginning were excellent became filled with corruptions, falsehoods and absurdities.

When we reflect that almost the whole exchange of ideas in the modern world depends, directly or indirectly, upon the printed word, the wonder is, not that ideas spread so slowly in the ancient world, but that they spread at all. Yet spread they did. The Babylonians got something from Egypt, and passed it on to the Persians, who followed them in control of Mesopotamia. The Greeks gathered much from both sources. Later the Romans took over the Greek civilization almost bodily, and incorporated as much of it as they thought they could use in their own system.

Much of this circulation of ideas was due to the activities of a nation which, while never great in numbers, yet made some of the most important contributions that the development of civilization owes to any single people. This nation was Phœnicia, a little country at the eastern end of the Mediterranean sea. One might describe the Phœnician

PHŒNICIANS ORIGINAL TRAVELLING SALESMEN

pretty well by calling him the world's original travelling salesman. The Phœnicians were seafaring people, and they roamed up and down the world buying and selling anywhere they could find a bargain or a good market. They came up the Nile to Memphis, in ancient Egypt. They travelled through the straits and inlets of the Greek peninsula. They pushed westward to Sicily and Italy. They founded the cities of Marseilles, in France, and Cadiz, in Spain, as well as the great city of Carthage on the North African coast, the city that was for many years to dispute with Rome the mastery of the world. They pushed on to the western end of the Mediterranean, through the strait of Gibraltar, up the coast of Portugal and across the bay of Biscay to Normandy, and finally as far as Britain, where they carried on a thriving trade in tin. In the employ of the Pharaoh Necho (the same who lost 120,000 slaves trying to dig a canal from the Nile to the Red Sea) they even sailed around Africa, thus beating Vasco da Gama by more than 2,000 years.

Such restless, shrewd, enterprising and practical people naturally picked up all sorts of information from the nations with whom they came in contact, and passed it on to the next customer, along with the goods that were their stock in trade. For one thing, they took the crude old system of writing practised in Babylonia—the script in which Hammurabi's Code was written—and the still more cumbrous picture-writing used in Egypt, accepted something from each, stripped off the unnecessary parts and worked the combination into an alphabet, which they gave to the Greeks, who passed it on to the Romans, whence it has come down to us. To-understand what a service the Phœnicians rendered toward speeding up the work of the world in just that one thing, it is necessary only to remember that the Chinese to this day struggle along with a system of writing that has 30,000 characters, against the twenty-six in our alphabet.

Although Phœnicia may not have originated any great new ideas of her own, she nevertheless made an immensely important contribution to the development of civilization in thus spreading among all nations some notion of what others were doing. She was the first to raise the merchant to a position whose dignity compared favourably with the dignity of princes. She demonstrated the value of a gobetween, of what has come to be known in later years as the middleman, or merchant.

Most important of all, she roused the barbarous nations of the west to greater endeavours. Phœnician ships, coasting along the Italian peninsula, brought their own purple dyes, the products of eastern civilization, the jewels of Babylonia, the ivories of India, the carvings of Egypt, spices, incense, silks and gold, to a rude and semi-savage people who lived principally off their flocks and herds, assisted by crude agriculture, around their insignificant city. No doubt it seemed a tribe of little importance indeed to the Phœnician sailors, who were familiar with Memphis and Thebes and Babylonia, not to mention their own Tyre and Sidon. Yet, in arousing the inhabitants of that small, crude city to a realization of how great was the world, and to a wish to share in its glories and its luxuries, they were paving the way for a new phase in the history of mankind. For the little Italian town bore the name of Rome.

NOW WE COME TO ROME

THE world has never quite recovered from the shock given to it by the Roman empire.

The rise of that little town on the banks of the Tiber to such power that it was able to rule the world was not in itself an unheard-of thing. One ruler after another had spread his dominion over most of the known world. Several Babylonian, Assyrian and Egyptian conquerers had done it. So had the Persians, later, and finally the most brilliant conquest of all was made by the youthful king of the insignificant country of Macedonia, Alexander- the Great,

But those were all personal exploits, or at least the exploits of a particular line of kings, so that one might explain them by saying that this man, or this family, had a genius for commanding armies just as Phidias had a genius for sculpture, or Ictinus for architecture. Faced by a supremely great general, a less able general was sure to be beaten, supposing that the armies were anything like the same size. But the rule was that when the great conqueror died, or the conquering family died out or was dethroned, the empire dwindled. It was so with Babylonia, and Assyria, and Egypt and Persia and Macedonia.

But it was not so with Rome. The Roman

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empire was not built by any one man, or any one family. It grew slowly, with a solidity the like of which the world had never seen. The king of Rome was dethroned, and the republic followed. The republic fell, and the empire followed. Cæsar followed Cæsar, one family after another grasped the imperial power, victorious generals quarrelled over and fought for it. Yet through it all the empire stood, and even extended its boundaries. After many centuries it finally split, and then declined; but the last vestiges of it were not swept away until Napoleon Bonaparte rose in France, more than two thousand years after Kome began her long ascent.

Obviously there must have been something wonderful indeed about this great new power that came into the affairs of men, something distinctly different, fundamentally different from any of the systems that had preceded it. As to the details of the Roman system, and their effect upon the history of the world, historians are still quarrelling; but all are agreed that Rome in the beginning managed to inspire the humblest of her citizens with a pride and faith in his city unmatched anywhere else in the world.

We have already seen how the ancient civilizations of the east, however magnificent they might have become at the top, had no care whatsoever for the man at the bottom. The commoner in Babylonia like the commoner in Egypt was either a slave outright, or so little better than a slave that he himself could hardly tell the difference. Even in Greece, while the citizens had pride in their cities, they were divided among themselves, and finally fell a prey to their own dissensions. On the other hand, the humblest Roman was a citizen of the imperial city, and the increase of its power and glory made itself felt in his everyday affairs. For instance, it was forbidden to officers of justice anywhere in the world to inflict the indignity of a public flogging upon a Roman citizen, and we read in the Bible how Saint Paul claimed that exemption, although he was by blood a Jew. It was the law of Rome also, that no man should lay violent hands on a Roman citizen anywhere in the world without a legion being dispatched to avenge his blood.

Now this, clearly, was a city worth fighting for ; and the Romans did fight for it-so well that they overcame every civilized nation with whom they came in contact, and made Rome mistress of the world.

But the Roman conquerors had developed far beyond the level of civilization of the terrible emperors of the east. Their idea was not to sweep down upon their enemies, massacring most of the inhabitants, carrying the rest off into slavery, and wiping out every vestige of the rival civilization. The Romans may have begun in that way, but they soon discarded it. Their idea when the empire rose to its greatest heights was not to destroy, but to bring under tribute all other powers. As long as the tribute which they levied was paid, and no attempt was made to throw off the Roman governors, the conquered people were for the most part left to themselves. In particular, the Romans were tolerant of other people's religious beliefs. The trial of Jesus, when the Roman governor washed his hands of the whole affair, is the most famous instance of this.

Thus, with all its ruthlessness and its brutality, the Roman empire was better than anything that the world had known before. For one thing, the Romans would not tolerate continual wars between minor states under their control. Perhaps this does them no great credit, for their objection to such wars was due to the fact that warring nations were not able to pay as much tribute to the Roman treasury as nations at peace. Still, the practical result was that when Rome was in control the world had a rest from the turmoil and strife that had always filled it before.

We need not be surprised, therefore, to find that the progress of the arts and sciences was great under the Roman empire. Greece had been conquered while Rome was still young, but the Romans had a curious respect for Greek learning and Greek art. We find the extraordinary spectacle, indeed, of Greek philosophers as slaves in Roman households, teaching the children of their masters. So, although Greece no longer figured in the history of the world as a formidable power, Greek civilization was by no means lost. Its best days were gone, but Rome was adapting it in part to her own ideas, and spreading it, so adapted, all over the earth.

The same thing happened with other civilizations. The gods of Egypt and Babylonia became known in the west. The Jews were permitted to carry their own culture all around the Mediterranean, and, indeed, after the revolt which the emperor Titus suppressed with a ferocity almost unparalleled even in Roman history, they were expelled from their own land, and became the wandering nation that they have been ever since.

But in return the supreme power of the Roman empire gave men a new conception of the majesty of the law. Under Rome, the law was not merely the will of some capricious emperor, but the rule · of conduct which all men must follow alike for their own good and for that of the state, and to which the emperor himself, in theory at least, was subject. To a world accustomed to the rule of eastern tyrants the idea that the law was, after all, only, the rule of reason applied to public affairs, was a brand-new notion. The Romans incorporated the idea of the law with the idea of the empire, and enforced respect for it with the utmost vigour. One might murder the governor or laugh at Cæsar, and by reason of extraordinarily good luck, or the presence of a lenient official, escape; but an insult to the eagles, that is to the majesty of Rome, meant an ignominious and usually painful death. This lesson was taught so impressively that it has never since been quite forgotten and whereas, in the orient, the idea of the law generally means the caprices of some judge, or at most some prince, in all the nations of western Europe, and in America, which drew its traditions from them, the law is something that is above all men, even the highest. It must be obeyed, not because the king commands it, or Congress orders it, but because upon obedience to it depends the safety of the state, which means the safety of all citizens.

CHAPTER XII

THE ROMANS LEARN THAT WAR IS EXPENSIVE

THE Romans were the first people to gain some faint notion of the truth that even a victorious war costs so tremendously that it rarely pays the victor in the long run, while as for private quarrels and neighbourhood feuds, they are destructive to everybody concerned, and especially to the state. Hence they developed a passion for order. The Roman peace may not have been based on the highest motives, but it at least gave the world a much-needed breathing spell. Petty princes were no longer permitted to ravage the · territories of their neighbours as much as they liked, for those territories also paid tribute to Rome. The empire was a unit composed of many parts; and for the good of the unit it was necessary that the parts should not be allowed to destroy each other.

But this orderliness ran through more than merely the government of the provinces. We have seen how out of Egypt first came men whose work was done almost entirely with their brains, and how the Greeks developed this intellectualism, as we call it, to a tremendously high degree. The Romans, in turn, profited by the studies of Egyptians and Greeks alike, and developed powerful thinkers of their own.

But the Roman, with more experience and

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greater information than the Egyptian, was also of a more practical turn of mind than the Greek. Where the Egyptian's or the Greek's range of ideas regarding practical problems of government hardly exceeded the bounds of a city or a kingdom, the Roman had on his hands the task of governing a world. With revolting tribes always threatening to bring about the collapse of the empire, he was confronted with the necessity of devoting his thinking primarily to problems of government. Thus he developed a new sort of work, statecraft, and a new type of workman to do it, the statesman.

Statecraft, according to the Roman idea was neither more nor less than the government of a city, or a province, or a kingdom, in such a way as to make it contribute the most it could to the prosperity of the empire. This was an improvement, morally, on the ancient idea of the kings, to make the domain contribute the most it could to the prosperity of the kings. To a certain extent, it was an improvement from the standpoint of the tributaries, also, for to a certain extent their prosperity ran with that of the empire. The richer they grew, the more tribute they could pay to Rome, so the Roman governor who allowed his province to be ravaged by savage tribes, or by the ruler of some neighbouring province, had to answer to Rome for his conduct. If he pillaged the province for his own enrichment, as he usually did, he dared not carry the process too far, or Rome's revenues would begin to suffer, and he would be extremely likely to lose his head.

Compared with the demands of most eastern potentates, what the Roman governors took from the common people was usually regarded as a trifle; which explains in great measure the rapidity and completeness of the Roman conquest of the world. It was better to be partially robbed of one's earnings by a Roman governor than to be completely despoiled by a native despot; so in numerous instances the Roman armies, to effect a conquest, had little more to do than to march in.

Rome carried the practice of statecraft to a high level. In the end she gave up the ideal of a great group of slave nations ruled by, and paying tribute to the imperial city. She admitted the nations she had conquered to citizenship in the empire. She transformed the tribute into taxation. She sought to induce the rest of the world to co-operate with her in maintaining the empire, and for a long time she succeeded. She actually organized the civilized world into one government that endured for centuries and that for a time seemed likely to endure for ever.

But this it did not do. Rome ceased to exist as a world empire nearly one thousand years ago. Historians have never fully agreed as to the causes of her downfall. It is plain enough, though, that one trouble was that the empire became too big to handle with the means that the Roman statesmen had at hand. Roman statecraft ran ahead of other sciences, and built an empire so large and so complicated that without such modern aids as the telegraph, railroads, and steamships the statesmen at Rome could not keep informed about what was happening in the vast territory they were supposed to rule.

In other words, the same thing happened to

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Rome that had happened in Egypt, although for a different reason—Rome was unable to use the intelligence she had. It is quite true that Rome did not despise the masses as much as Egypt had done. It was entirely possible for a man of humble birth to rise to a position of high authority in the Roman empire; and without doubt that is one reason why it lasted so long. But the keenest and most active brain could not avoid making mistakes in governing a province which was so far away that the latest news as to what was happening there always was weeks, and frequently was months, old when it reached Rome.

The longer the empire endured, the harder it became to govern it from one city. That is easily understood when one remembers that the peace that the Romans enforced gave the provinces a chance to develop as they never had developed before. The men that formerly had been killed off in wars between petty kings were allowed to live under the Romans, to become citizens and workers, and to raise children of their own who in turn became workers. The cities that the petty kings had constantly been sacking and burning grew populous and wealthy when they were held by Roman soldiers and protected against attacks by these neighbouring tribes. The fields that formerly were ravaged by raiders every year or so were undisturbed under the Romans, and produced crop after crop, adding to the wealth of the region.

But as these regions far away from the centre of the government grew richer and more densely populated, the task of governing them grew harder and harder. A man of no more than average

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intelligence can act as mayor of a village of two or three hundred people and be successful at it; but if the same man were made mayor of New York City he would, in all probability, be a hopeless failure. The world was vastly different when the Romans began to build their empire from what it had become twelve or fifteen centuries later, when the empire faded away. And in the meantime, workers of other sorts had not come forward with new ideas to help the statesmen overcome the difficulties that beset them. Nobody invented swifter ways of carrying messages, so the govern-ment depended to the end upon mounted horsemen. Nobody invented a steamship or a railway to transport the legions rapidly to the place where they were needed most. Nobody invented gunpowder with which to fight the barbarians on the frontiers. Nobody found a way to prevent or cure the great plague, which finally killed off so many Romans that it became necessary to fill the legions with hired soldiers who were not Roman citizens at all.

So the rule of Rome gradually became intolerable to one after another of the countries that had grown rich and powerful under her sway, and one after another they rose against her and cast her off. A contest for power within the empire split it, and Byzantium, or, as we know it, Constantinople, became the capital of the east while Rome remained that of the west. In the end, when the barbarian hordes poured down over the Alps into Italy, they found, not the powerful empire of Augustus Cæsar, but only a poor remnant of that empire, which they were able to defeat and pillage. THE ROMANS LEARN THAT WAR IS EXPENSIVE

One very seldom knows. Even if Rome had had at her command all the resources of the British empire, it may be that there was some defect in the character of the Romans that would have ruined their empire just the same. But that is only guessing. As far as the facts are concerned, they seem to show that the failure of the Roman empire was failure to develop the other sciences as fast as it developed the one science of statecraft. If her craftsmen and inventors had worked as well as her rulers and statesmen, there would certainly have been a different story to tell.

Be that as it may, these old Roman statesmen proved one thing beyond dispute, namely, that it is both possible and desirable so to organize the world as to prevent wasteful and useless wars. They did it; and although their work did not endure for ever, the world has ever since been slowly working back toward the ideal of the Roman peace.

CHAPTER XIII

THE BREAK-UP OF THE ROMAN EMPIRE

THE Roman empire did not fall as Carthage fell, as the Napoleonic, the German, and the Russian empires fell, under the assault of one particular foe or combination of foes, and with one tremendous crash. Rather, it melted away, as an iceberg melts—the strength went out of it gradually and imperceptibly, one bit after another split off and disappeared, until, almost before men had realized that the empire was doomed, it was gone.

One cannot pick one particular date and say, "Here ended the Roman empire." And because it melted away so gradually, the influence that it exerted on men's minds has lasted down to this day. When Carthage fell, it was instantly apparent to everybody that Carthage had made a fatal mistake in opposing Rome, so the Carthaginian idea disappeared. When the Napoleonic empire fell, it was instantly apparent to everybody that the idea of conquest based on the military genius of one man was not feasible. When the German empire fell, it was heralded throughout the world as the fall of the idea that the world could be conquered by the military genius, not of one man, but of a school of soldiers. When the Russian empire fell, is carried down with it the last remnant of the prestige of autocracy. In each case, when

the empire fell, in one grand crash, the idea generally associated with it in men's minds was discredited—one might say that the idea fell with the empire.

But Rome didn't fall. Rome gradually faded away, and certain ideas that were peculiarly Roman maintained their prestige for centuries. Indeed, in theory the empire itself lasted until Napoleon swept it away, little more than a century ago. For hundreds and hundreds of years there was an emperor to whom most of the kings of Europe were supposed to owe allegiance. True, he had little or no actual power, but in theory he was the lawful successor of Cæsar Augustus.

And in another department of life than politics the Roman idea was even better preserved. Before the empire collapsed the bishop of Rome had become head of the Christian church in western Europe, and his power increased, rather than diminished, as the power of the Cæsars declined.

Neverthéless, as Rome grew weaker, and from one remote province after another the legions disappeared, with the increase of Rome's inability to impose her will on other nations there grew up disrespect for that will as it was embodied in Roman law. Petty chieftains, although not denying their obligation 'of loyalty to the emperor, began to do as they pleased. There was no longer a great central authority to which ordinary men might appeal as Saint Paul appealed to Cæsar after being condemned by a petty official. The emperor was far away, and there was no legion at hand to carry out his will; the count, the baron, the lord of the manor, was close; so no matter what might be the imperial law, what the local strong man said was the local law.

So with the disappearance of the imperial power, there grew up, all over Europe, a state of indescribable confusion. Every strong man who could command a handful of followers sought, and fought, to extend his authority. The victims of these fights were less the contending bands than the people of the countryside, the ordinary inoffensive peace-loving workers. Such a state of affairs soon grew intolerable, and to make it bearable the people did what they had done thousands of years before, when men lived in caves and fought with stone clubs-they attached themselves to the nearest chief whom they considered capable of protecting them, and agreed to serve him in war and pay tribute to him in peace in return for pro-tection from other chiefs. But this time the system did not stop with that. The chiefs found themselves in a position which was like that of the common people-always exposed to the raids of some stronger chief. So they, in turn, grouped themselves around some more powerful leader, agreeing to serve him a certain number of days out of the year in the field of war, and to bring each a certain number of his followers, mounted or on foot. The strongest of all these chiefs, whom all the rest were in theory bound to obey, was the king; and the king himself owed some shadowy allegiance to the emperor.

This arrangement was what is known as the feudal system, and it soon spread over practically all Europe.

There was one modification of the rule, however,

that in a history of work is exceedingly important. Before the Roman power declined there were already in existence great provincial cities; and these, as a rule, successfully resisted coming under the power of any local chief, owing allegiance to the king alone, and occasionally to the emperor directly. In some cases, notably that of the city of Florence, in Italy, the strife of the petty chiefs was merely transferred to the streets of the city itself; but in many instances the city was for the most part self-governing

This liberty of the cities rested upon the strength and courage of the workers, artisans or traders, simply because there were not enough others to defend the town. Scores of times such towns were attacked by some baron, or count, or duke-in not a few instances by the king himself-and successfully beat off the attacks. This gave the workers in the towns a confidence in themselves, and a dignity in the eyes of others, of which the peasantry never dreamed. It was reflected in their pride in their work; and this pride in the work itself led the workmen to form great associations, or guilds, in which all the bakers, say, strove together to protect and advance the interests of bakers. They were the first movement toward our modern labour unions.

So, although the Roman empire had rotted into a slave-state and had collapsed, the idea of unity that it had given the world remained. The feudal system was based on men's realization that there ought to be somebody at the head of things, as well as on mere self-protection. Of course, the idea had been more or less vaguely present in the minds of men since the first cave-men gathered in a group around the old patriarch, who was wise as well as strong ; but the Roman empire crystallized it; made it clear and definite, fixed it in the imaginations of men so firmly that it never has been shaken since.

To emphasize this idea of a world graded up from lower to higher, there was the enormous influence of a religion organized on much the same lines as the Roman empire. But the power of the church was spiritual. It did not depend on the presence of Roman legions to enforce its authority, but relied instead on the terrific power that men conceived as resting in the hands of the Pope, as Vicar of God. Consequently, the disappearance of the legions affected this authority but little. Strong and unscrupulous men flouted it constantly, but the mass of mankind believed in it and respected it. It tended to hold the world together.

So, although Rome had gone down, there still existed an organization, and in some respects a better organization, had it worked as it was intended to work. There were no more governors sent out from Rome and intent on nothing but wringing out the greatest possible tribute to Rome. Authority was in the hands of local chiefs, for the most part, who, when they were intelligent, worked to build up, rather than to despoil, their domains. Furthermore, in the towns there was a long advance toward a democracy resting upon the courage and skill of the average townsman; and in consequence of that a body of workers who respected themselves and their work.

We often refer to this period in the world's

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history as the Dark Ages, because the splendour of the ancient empires had sbeen extinguished. But in reality this time was the first grey dawn of the modern day, when the world frankly admits that its well-being depends, not upon the extension of the sway of some emperor-god, not upon the power of his armies, or the cunning of his officials, but upon the strength and skill of the vast majority of men, the workers.

The feudal system had the seeds of its own death within it, but it had also the seeds of life ; and while it extinguished, for the moment, ancient learning and ancient art, it finally produced a new learning and a new art of a different order from anything that the world had ever seen before.

CHAPTER XIV

A GLIMPSE OF THE DARK AGES

IN spite of the fact that the feudal system was far better than the anarchy that it displaced, and although it permitted, in the great towns, the beginnings of modern democracy along with the enormous expansion of the idea of aristocracy, life in those days was, from our standpoint, dreadful indeed. Dragged down by its weaknesses, some of the strong characteristics of Rome had disappeared, These included the arts. When men lived too. daily in fear of their lives, they had no time to study their work, and therefore no time to learn to make that work beautiful. Especially in its beginning, life under feudalism was stern to an inconceivable degree. Anything approaching luxury was unknown, even to the rulers. The king of France had for throne a short wooden bench without a back; and the rough manners of the time are illustrated by the fact that when Rollo, the Northman, came to render homage to the king by kissing his foot, instead of stooping to do so he jerked the foot up so suddenly that the king fell over backward.

If, then, the royal palace was so ill-furnished, imagine what must have been the condition of the homes of the poor. The most miserable hovel of to-day would have seemed a veritable palace to most of the vassals of a medieval knight; and the 'home of a modern workman would have overwhelmed with its splendour the knight himself.

In the greater part of Europe there was no established order. Thieves, highwaymen, criminals of every description, infested the land; and in return for protection from them, the ordinary working-man surrendered to his liege lord every conceivable right, even the right to life itself. The nobleman might kill his vassals in a fit of rage, and there was none to punish him; and he did take from them whatever he fancied, whenever he liked.

The lives of the nobles were taken up with hunting, drinking, and fighting with their neighbours; and when there was no real war going on, they amused themselves with tournaments, mimic warfare in which the knights fought with blunted weapons. But while these tournaments were supposed to be mere pastimes, they were often fought so furiously that the contestants were killed.

Study and contemplation, the keen intellectual debates in which the Greek philosophers strengthened their minds, were deemed unworthy of a layman in the Middle Ages. Such things were left to the priests. The majority, perhaps, of the knights, many great lords, and even some kings were unable to read. Naturally, therefore, they took no interest in books, and learning almost died out except in the cloisters, where the priests kept it alive. Naturally, also, since one must have a cultivated mind to appreciate beautiful things, it was next to impossible for a skilful artist to make a living by selling his work to the lords, who alone had any money. The brutal and ignorant noblemen had no desire for paintings, carvings, beautiful books, or even jewels except the showiest. These things, found buyers only in the priests, who were the only men cultivated enough to value them.

But if the lives of the nobles were brutal and sordid, imagine what must have been the lives of the common people. Living in the most wretched hovels, half-naked and half starved, able by the hardest labour to win no more that was absolutely necessary to keep body and soul together and liable at any moment to be thrown into prison or even hanged by the lord if they chanced to anger him, this world offered them no hope of a better condition.

Even in the great towns, where the guilds flourished and grew too strong for any nobleman to dare to attack their members, the lot of the working people was terribly hard Men had not yet learned to harness the forces of nature, except, as has been said, by means of crude water-wheels and windmills only less crude. The only force to turn the wheels of industry was animal power, brute or human. Weaving, for instance, had all to be done on looms worked laboriously by hand. In consequence, all cloth was extremely dear. The labourer who could buy a whole new suit of clothes once a year was accounted rich. Everything else was made the same way, and was correspondingly expensive. The working people in the middle ages, even in the towns, lived in such wretchedness and filth as would not be tolerated to-day in the worst slums of our cities.

But as no one-at least so far as these people

knew—had ever questioned the right of kings and nobles to grind down the common people, there was no hope of betterment in this world. It was taken for granted that there would always be kings and nobles, and that they would always live at ease on the labour of their vassals.

Yet there was one ray of hope, although it did not touch this world except as a reflected light. That hope was religion. The Church offered escape from the hardship and wretchedness of existence, although that escape was in the life to come. After all, here was a power superior to that of the knight, superior to that of the baron, superior to that of the king himself. The courts of earthly law had but little power, and in any case they were closed to the lower orders ; but into the court of heaven the meanest serf could come and plead his case against the greatest lord on earth. From the immense height of heaven, prince, baron, and knight dwindled until they were no more to be regarded than their vassals. In the final adjustment the Church promised that all earthly wrongs should be righted and that all men should be given their just dues, not in accordance with birth or power, but in accordance with the deeds they had done in the flesh.

Without considering the misery of their daily lives it is impossible for us to imagine, much less to comprehend, the fervour with which men embraced religion in those times. The political empire of Rome had crumbled; but the spiritual empire of the Church only increased as the other sank. It tightened its grip on prince and nobleman, as well as on vassals and serfs; for the nobles were not altogether satisfied with their brutal and ignorant lives, and longed for something finer. That the Church seemed to offer, which explains the enthusiasm with which they responded when the Church called for fighting men to rescue the Holy Sepulchre from the heathen. The Crusades brought western Europe into contact with the more civilized east, and the Crusaders brought back with them an immense store of learning, of new customs, and new ideas, which profoundly modified life in all the western countries. But the Crusaders are notable first as proof of the utter devotion of men of that period to the ideas and ideals of the Church.

What men are sincerely willing to die for, they are willing to live for, and to work for. The ordinary day's labour was necessary to the preservation of life itself. Service rendered to baron or king was forced service, extorted by fear of the lash or of the hangman's noose. Neither is truly to be described as the willing labour of free men, since punishment or death would have followed refusal to perform either, and neither offered much reward to the worker.

But service to the Church was rendered willingly. Perhaps it was not given, since the workers were firmly convinced that they would be handsomely rewarded for it in the life to come. But at any rate, it was done by deliberate choice of the worker himself, it was work that he wished to do, work which he did as a free man, and the only work that he did simply and solely because he wanted to do it.

Threats and violence forced the workers to

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their tasks everywhere else—the threat of starvation, if nothing worse. But he who worked for the Church came to the work of his own free will, and worked as long as he liked because he liked it, and not for fear of punishment if he quit.

CHAPTER XV

HOW THE GREAT CATHEDRALS WERE BUILDED

THE work of the world went on in the Middle Ages as at any other time. There were people to be fed and clothed, and goods had to be transported to do it. Men worked as much at that time, no doubt, as they did in the time of Pericles, or of Augustus Cæsar. In fact, there must have been more work done, since there were more people to do it.

Yet the fact stands out that almost all the work of that period that still commands the admiration of men by reason of its dignity, grace and beauty, is work that was done for the Church. The more perishable fabrics have long since disappeared; but much of the architecture of the period still exists, and the finest of that architecture is represented by the cathedrals. These are so fine, indeed, that we have never been able to do better, and until quite-recently nearly all church architecture was imitated from them.

The building of the cathedrals differed from all the great works of preceding ages. They were not the creations of some great ruler, such as the Pharaohs of Egypt, or Pericles of Athens, or the Roman Cæsars. They were built, for the most part, by the cities in which they stand. Princes and nobles often contributed large sums of money; but the common people also contributed both

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money and labour, while the great rich guilds rivalled the nobles in the magnificence of their gifts. For instance, in the cathedral of Chartres one window was given by the king of France, and the next by the guild of the carpenters and coopers; opposite is a third contributed by the stone-masons, while the window of Blanche of Castile, mother of the king, is next to one given by the fur merchants. When it came to working for the Church, the common people and the nobles were on the same footing.

But the work itself was done after a fashion in which no work had ever been done in the world before. A churchman, Abbot Haiman, of Saint Pierre-sur-Dives, wrote a letter, which has been preserved, describing the building of the cathedral of Chartres. He wrote :

"Who has ever seen I---Who has ever heard tell, in times past, that powerful princes of the world, that men brought up in honour and wealth, that nobles, men and women, have bent their proud and haughty necks to the harness of carts, and that, like beasts of burden, they have dragged to the abode of Christ these wagons, loaded with wines, grains, oil, stone, wood, and all that is necessary for the wants of life or for the construction of the church ? But while they draw these burdens, there is one thing admirable to observe; it is that often when a thousand persons and more are attached to the chariots,---so great is the difficulty,--yet they march in such silence that not a murmur is heard, and truly if one did not see the thing with one's eyes, one might believe that among such a multitude there was hardly a person present.

When they halt on the road, nothing is heard but the confession of sins, and pure and suppliant prayer to God to obtain pardon. At the voice of the priests who exhort their hearts to peace, they forget all hatred, discord is thrown far aside, debts are remitted, the unity of hearts is established. But if anyone is so far advanced in evil as to be unwilling to pardon an offender, or if he rejects the counsel of the priest who has piously advised him, his offering is instantly thrown from the wagon as impure, and he himself is ignominiously and shamefully excluded from the society of the holy. There one sees the priests who preside over each chariot exhort every one to penitence, to confession of faults, to the resolution of better life ! There one sees old people, young people, little children, calling on the Lord with a suppliant voice, and uttering to Him, from the depth of the heart, sobs and sighs with words of glory and praise ! After the people, warned by the sound of trumpets and the sight of banners, have resumed their road, the march is made with such ease that no obstacle can retard it. When they have reached the church they arrange the wagons about it like a spiritual camp; and during the whole night they celebrate the watch by hymns and canticles. On each wagon they light tapers and lamps; they place there the infirm and sick, and bring them the precious relics of the Saints for their relief. Afterwards the priests and clerics close the ceremony by processions which the people follow with devout heart, imploring the clemency of the Lord and of his Blessed Mother for the recovery of the sick."

This was democratic labour, when princes and

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nobles harnessed themselves to the same wagon with serfs.- It was willing labour, to which each came of his own accord. It was joyful labour, which each performed for the joy of doing it. Men were driven to it, not by violence and threats, but by religious enthusiasm, strengthened by civic pride, as each town wished its cathedral to be larger and more beautiful than any other. It was hard labour, such as was performed by the common people every day; but they had no such attitude toward any other work.

Into their ordinary work they put their labour, and skill enough to make it acceptable to their taskmasters; but no enthusiasm. Into this they put their hearts and souls, as well as their bodies and brains. The stonecutter, carving an ornament to fit on a corner, was not working to please some drunken, brutal knight, who would order him to be whipped if he failed to do the work satisfactorily, and reward him meagrely if the work was well done. He was working to please Saint Peter, or Saint Stephen, or Saint Paul, or the Queen of Heaven herself, the Virgin Mary, to whom many of the cathedrals are dedicated. He believed absolutely that the person to whom the building was dedicated would examine every part of it, and reward each of the workmen according to the excellence of his work ; and that reward was to be, not a small sum of money, but reception into heaven, into everlasting happiness, where all the wrongs that the workman had suffered on earth would be righted, and all his hardships be exchanged for eternal delights. The saints could not be deceived, much less our Lady. They would certainly know

which workman had done the best he could, and which had scamped his work. Earthly overseers might be fooled, but the worker on the cathedral believed that he was watched by invisible hosts, who could report not on the work alone, but also on the spirit in which it was done. If the rascal could not hope to escape unpunished for his rascality, neither was there any possibility that the honest workman could be cheated of his just dues. The priest might not see, and the people might not see ; but the saint would know, the Virgin would understand ; and the reward would be unfailing.

Therefore the cathedrals meant more to the men who built them than so much masonry, so much glass work, so much gilding, and painting, and carving. They meant far more than so many days' labour. They were not simply work, they were men's way of escape from the numberless evils that beset them into a future world where all should be ideal. They were men's dreams and faith and hope. They were the workmen's way of giving thanks to a loving and merciful God who was to rescue them from a harsh and merciless They were praise. They were the workworld. men's petition to be admitted into Paradise. They were prayer. They offered to the penitent sinner the opportunity, by toiling day after day at their building, to appease outraged justice. They were atonement. They permitted the lover of beauty to bring all rare and beautiful things to the service of infinite Beauty. They were grace.

So out of that harsh and rugged world there arose a new art. In Greece, centuries before, a small class, given leisure by means of the labour

of many slaves, had created a noble art; and Rome, grown rich on the tribute of conquered nations, had imitated it with success. But in each case, the art came down from above. It was created by a small upper class, who alone could appreciate it, and the common people had no part in it. But the art of the cathedrals grew up from below. It was the creation of the workers. For the first time in history the masses of the people found out how to pour into their work all their hopes, longings and aspirations, all their dreams of justice and their visions of beauty, all their stifled desires for escape from the pains and woes and wretchedness of their bitter lives on earth.

All over Europe in the Middle Ages the cathedrals sprang up like flowers growing strangely in rocky and barren soil. And many of them are flower-like in their beauty. They are as various as the cities that produced them-the cathedral of Our Lady of Rheims, for instance, with the tremendous height of its vaulting, with its sharply pointed arches, with all of its lines sweeping upward, all carrying the eye heavenward, had behind it the idea of Aspiration, the unending struggle of man toward God ; while Our Lady of Paris, with its horizontal lines, its flat-topped towers, the brooding calm of its massive walls, just as plainly had behind it the idea of Tranquillity, the heavenly peace promised to men scarred and broken by the endless wars on earth. But, whatever the central idea of the architecture, one thing they all possessed in common-a serene and confident majesty unparalleled by anything else on earth.

This is astonishing when one remembers that

these buildings were created for the most part by the efforts of the humblest men. The common people, the down-trodden and oppressed, the vassals and serfs whose condition was worse than that of many of the Roman slaves, when they were given a chance to work as free men, and to put their hearts into their work, produced structures as regal in their magnificence as anything built by Rameses, or Necho with his 120,000 slaves, or Pericles, with the greatest architect and the greatest sculptor of all time to help him, or Augustus Cæsar, with all the world at his command.

Yet the workmen were not altered from what they were before the cathedrals were built and what they were afterward. Their surroundings were not altered. They worked as hard as ever, they ate as little as ever, they were as oppressed and wretched as ever. Nothing was altered, except their attitude toward their work. Yet that change in attitude was enough to raise that work out of the rough, crude, humdrum things of life and lift it into the sublime.

CHAPTER XVI

THE COMMON PEOPLE BEGIN TO THINK A LITTLE FOR THEMSELVES

A FEW years ago people, including even historians, commonly referred to the period of teudalism as "the Dark Ages," and the term is still used accasionally. But there is now a growing tendency to regard that time as the beginning of the long upthrust of the common people that has within the past ten years resulted in the overthrow of the last of the great autocracies of Europe and made democracy the prevailing form of government all over the civilized world. If that view is justified, they deserve to be referred to as the dawn of democracy, rather than the Dark Ages.

At any rate, it was at this time that the mass of mankind began to move, as they say of automobiles, under its own power. Until the decline of the Roman empire whatever popular movements occurred almost invariably were instigated by the upper classes, directed by them, and partially or completely controlled by them to accomplish their own ends. Even revolts were usually engineered by some shrewd nobleman or patrician; and the work of the world was always directed from above. The common people were inert except when and as they were stimulated to activity by their superiors. Of course, these superiors saw to it that they collected for themselves most of the benefits of the movements, whether of industry, commerce, or war, that they had provoked.

But the people who inhabited western Europe in the Middle Ages acted in a different manner. They had been civilized in a different[#] manner. Whereas the civilizations of the east were of extremely slow growth, so slow that the characteristics of the savages were totally lost hundreds of years before each civilization reached its height, the barbarians of western Europe were civilized at the point of a Roman spear, civilized almost suddenly. They had not time to forget their ancient traditions and customs ; and their traditions and customs were those of the fiercest race of men that ever inhabited the earth. In the stern northern lands from which the dominant element among them came none could survive but stalwart men and courageous men. They were among the few races that fought, not for any definite aim, but just for the fun of fighting. They did not fall down before their chiefs and worship them as gods, making it not only criminal, but sacrilegious, to raise a hand against the head of the tribe. If any warrior among them thought himself stronger than the chief, he never hesitated to attack the leader and kill him if he could ; and the only way a chief could maintain his leadership was by being stronger and quicker than any of his turbulent subjects.

By the time of which we are now speaking the civilization that the Romans had imposed upon them had reduced the turbulence of these people. The victory of the Romans had taught them the necessity of discipline. Man for man, the barbarians were as good fighters as the Romans, perhaps better; but the barbarian horde could not stand against the well-trained, well-disciplined Roman legion. Nor could the work of a civilized country be carried on by people whose favourite amusement was fighting. All in all, these northern Europeans were considerably tamed before the decline of the Roman power left them to work out their own system of government. Yet they were not so completely tamed as the Egyptians, for example. Something of the old spirit was left, and probably the most wretched villein under feudalism never sank so low in his own estimation as did the Egyptian slave.

The time had indeed passed when a commoner dared raise his hand against his chief in single combat; nevertheless, in their veins was the blood of the men who had sailed with the Vikings, the old Norse sea-kings. Each of those men knew that.if he were strong enough and bold enough he might make a Viking of himself. This probably accounts for the fact that now for the first time in the history of the world the common people had spirit enough and energy enough to raise vast and beautiful temples to their God. Temples hitherto had been the work of princes; even the temples raised by the Jews on Mount Zion had been called Solomon's temple and Herod's temple. But the cathedrals, unless one includes among them the church of Sancta Sophia, built by Constantine the Great at Constantinople, were the work, not of the kings, but of the people.

Still more striking evidence of the energy of the

workers and the new-found intelligence that guided that energy is revealed by the rise of the organizations commonly called the Guilds. They were the first claim laid by the workers to consideration as a part of the world that must be reckoned with by nobles and princes. They were the first assertion that the labouring man has rights that others must respect, the first successful denial of the widespread belief that labour is essentially undignified.

But they were far indeed from resembling labour unions as we know them to-day. They sprang up in the towns, for it was in the great towns that the artisans gathered. Man had not yet learned to control the forces of nature except in a very limited way. He had forges, in which fire was used to work metals. He had grist-mills, some driven by water and some by wind. But they were small and clumsy affairs; and all other machinery was worked by hand. Steam and electricity as sources of power were not yet dreamed of. There had been some experimenting with hydraulic and pneumatic engines, but nothing of any account had been done with them. Not even the spinning-wheel had as yet come into use; spinning was done laboriously by means of a distaff. Weaving was done on-hand looms. Tanning and leatherworking was all done by hand. So, in fact, was all other manufacturing.

Suppose a man had become a skilful cabinetmaker, or joiner. He did not go to a great furniture factory, where there were huge and powerful machines, worked by hundreds of other men. He stayed at home, and did every bit of his work himself. Round stock, sawed stock, flat, shaped, or carved—he worked it all with his own hands. Usually he made his own designs. He fastened it together—whence his name of joiner—he dressed it, that is, smoothed the rough surfaces, and finished it, that is, applied the oil, stain, or paint that gave it the final touch. Then he went out and sold it, or delivered it if it had been made to order. He was furniture designer, furniture worker, furniture manufacturer and furniture merchant, all rolled into one.

If his work was good enough to please the citizens of his city, he presently found himself with more orders than he could fill. In that case, there were two courses open to him; he could employ less skilful cabinet-makers to work according to his designs and under his direction; or he could agree with one of his neighbours to teach that neighbour's son- how to make furniture, provided the boy's father agreed to allow the boy to work for the cabinet-maker for a specified time, usually seven years. Ordinarily he did both. He would gather as many trained workmen as he could find and also a few boys and take them all to his house, where he had not only his workshop, but also sleeping quarters, at least for the boys. The men in such an establishment, who were paid daily wages, were called journeymen; the boys who were there to learn the trade, and got nothing for their labour but their board and lodging, were apprentices; the cabinet-maker himself was the master-workman. The agreement between the master-workman and the apprentice's father, which was set down in writing and recorded in the public records, was called, in England, articles,

and the apprentice was articled, or bound, to the master for the term of his apprenticeship.

An important clause in the article was one pledging the apprentice to keep the master's processes secret. That may not have amounted to much in the furniture trade, but it was considered of the first importance in other trades, as, for instance, dyeing, and the fabrication of weapons, in which skilful master-workmen made every effort to prevent outsiders from learning the composition of their dyes, or the process by which they tempered their sword-blades.

A large city would have a considerable number of cabinet-makers, dyers, sword-smiths, or armourers as well as artisans of every other description. These naturally associated more or less closely, and soon they found that by acting together they might accomplish many desirable things that none of them could do alone-regulating articles of apprenticeship, for instance, or the pay of journeymen, or the price at which their products were to sell. So they formed organizations that went by a variety of names, the commonest of which was guilds. The weavers seem to have been the first body of workmen to organize; although prior to the appearance of the weavers' guilds there had been a rather loose organization known as the guild merchant, to which more or less everyone engaged in trade had belonged.

Once started, the movement progressed rapidly, and presently there were guilds representing every conceivable occupation in every important city. They enlarged their activities, also, and from dealing with matters concerned exclusively with the trade they soon proceeded to undertake the promotion of the welfare of their members in every way. They became social, as well as trade organizations, and there were even guilds that had no connection whatever with any trade, but were purely social and to some extent political combinations.

It should be borne in mind that while, in the case of the trade guilds, the only full-fledged members were master-workmen, they differed from present-day employers' associations in that every worker's normal expectation was to proceed through the stages of apprentice and journeyman to the estate of master-workman. Furthermore, every master-workman had been apprentice and journeyman; so that the relation between the alderman, or head of the guild, and the youngest apprentice was comparatively intimate—much closer than the relation between the president of a modern corporation and the youngest employee.

CHAPTER XVII

THE GUILDS GROW IN POWER AND INFLUENCE

THE guilds quickly rose to a condition of affluence and to a position of power in church and state never before attained by any organization of the workers. Indeed, sometimes they rose to princely rank, as at Venice, where the ruler of this city, the Doge, was elected by the merchants from their number; and everywhere their power and dignity were so great that it was not deemed inappropriate for the guild of the carpenters and coopers to present to the cathedral, as they did at Chartres, a window whose magnificence almost outshone that of the one presented by the king of France.

This achievement of wealth and power, like the art of the cathedrals, was a result of the change in the attitude of the workers toward their work. The guilds rose in spite of what we should regard to-day as insuperable obstacles. Princes and nobles naturally regarded them with no great favour, and opposed their rise to power in so far as they dared. Furthermore, the work itself was done under handicaps greater than had existed during the height of the power of Rome. In Roman times, the worker was at least fairly sure of his own security; in medieval times, the workers of the great towns had to furnish their own defence. It was not enough to be merely a skilful craftsman; one had

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also to be a good man-at-arms, or the city would surely have fallen prey to an outside invader, or to some neighbourhood baron.

If the strong-walled cities had at times to be defended with desperate valour, think what must have been the condition of the lonely highways. Means of communication were few and extremely slow. Travel was difficult and terribly dangerousmuch more difficult and dangerous than it had been under the Roman empire. Every forest-and forests at that time covered the greater part of Europe-was infested with bandits of the most ferocious character, and their bands at times grew so large and bold that they stormed castles and even towns, and fought against and destroyed the forces that the king sent against them. Indeed, in the passes of the Alps, certain noblemen turned highwaymen, and increased their revenues by robbing all travellers who passed near their castles; and these robber barons made such an impression upon the age that their crimes are remembered to this day.

Yet commerce not only survived, but flourished. In the eleventh century Palestine had been overrun by the Turks, so that the city of Jerusalem was in the hands of Mohammedans. This fact so wrought upon the imagination of an extraordinary character, Peter, an ascetic monk and a hermit, that he started about Europe preaching the duty of Christian knights and princes to rescue the Holy Sepulchre from the hands of the infidels. In 1095 Pope Urban started the first of a series of efforts to accomplish this end, and three armies, under the supreme command of Godfrey of Bouillon, actually went from western Europe to the near east and drove out the Turks. The Christians did not organize their position, however, and soon lost what they had conquered; and during the succeeding centuries there was one effort after another to regain what Godfrey had won. Each succeeding crusade, however, was weaker than the last; and in the end the Turk was left in possession.

But these affairs had a tremendous influence upon the lives of the common people of Europe. By sending great armies to Asia Minor they became acquainted with the rich and splendid civilization of the east. That civilization was far more tyrannous than feudalism, but it had preserved many arts and sciences that had been lost to the west; and these the crusaders brought back with them, as well as knowledge of the cities and trade-routes of the eastern Mediterranean. The returned soldiers also created a demand for many products before unknown in the west. They wanted silks, finewoven linens, spices, perfumes-innumerable things with which they had become acquainted in the These the merchants set themselves to east. import, and the craftsmen to imitate. So trade and commerce flourished.

And as they flourished, the workman's new attitude toward his labour strengthened. His work was lifting him out of the wretchedness in which his forefathers lived, and making of him a man who, through the representatives of his guild, could speak almost on terms of equality with princes. His work therefore was no longer a thing to be regretted as a hard necessity, which he would

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certainly dispense with if he could ; it was a thing to be respected, the thing that made him a man who could walk with head erect among his fellows. Constant association with other men engaged in the same sort of work also bred in him a pride in doing that work well ; for the better his work, the higher his standing in the estimation of other craftsmen.

Thus it came about that neither before nor since has the world seen such pride of craftsmanship as marked the latter part of this period. Collectors to this day marvel at the way in which the workmen of that time made of the commonest articlesthe hinge of a door, a padlock, the very hooks on which the kitchen pots were hung-exquisite works of art. The workman took infinite pains because he was fashioning, not merely a hinge, a padlock, a pot-hook, but his own reputation, his own standing in the city. Had they only realized it, that had always been true to some extent. Could we only realize it, it is true to-day. But circumstances brought it home with peculiar force to the workmen of that time, and the result was some of the finest work that has ever been done by man.

Circumstances also drove into their minds the truth that the individual workman is weak when he acts alone, but that when he co-operates loyally with his fellows he is tremendously strong. The guild rules took especial care to guard the loyalty of craftsmen to the guild. Nothing was more heinous than for a guildsman to do something likely to affect injuriously the power and prestige of the guild.

The dignity of labour and the power of co-

operation among the workers were two ideas that feudalism permitted the common people to absorb. Had it done nothing else, the system would have justified its existence, and proved its superiority to the imperialism of the later days of Rome; for those two ideas have brought the worker up to his present level of civilization, and upon them it appears that he must depend for any further advance.

Nevertheless, these two ideas, by assisting in the upthrust of the mass of mankind, finally toppled over the feudal system. As the cities with their comparatively free and aspiring working populations grew stronger, they grew increasingly impatient of the exactions made upon them by the More and more frequently powerful nobles. they appealed to the king, against the great lords. More and more they threw their strength to the support of the king against the nobility; and largely by their aid the king, in practically every country in Europe, finally broke the power of the nobles and made himself supreme.

Feudalism had gone the way of all preceding political systems. It, too, had been unable to employ the intelligence of the masses. It centred government in the hands of a few great lords, by no means 'the most intelligent men in the country, and it would not-indeed, could not-admit to a share in the government unusually able men of humble birth.

And so it went down, betrayed by the same weakness that had destroyed the civilizations of the east, of Egypt, of Greece and of Rome.

But in this case the masses were no longer 106

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inert, passive tools in the hands of the higher classes. The destroyer of feudalism was not an invading barbarian horde. It was the mass of mankind, abandoning its inertia and actively moving for the first time to raise itself by its own efforts. Therefore, civilization did not collapse along with the political system. On the contrary, it flourished more than ever.

That movement of the masses has never ceased since. Everywhere men are acting in the belief that they can improve their own condition by their own efforts. To be sure, for a long time after the collapse of feudalism they suffered oppression under the kings; but kingship lasted for a shorter or longer time just in proportion to the skill of the ruling families in not opposing too long or too defiantly the will of the people. The British monarchs, as a whole were particularly adept at picking precisely the right moment to yield, with the result that the British monarchy lasts to this day. Dynasties less shrewd have long since passed into oblivion. Unable or unwilling to follow the example of the English kings in skipping nimbly out of the way, they have been crushed by the great popular movement without halting it as a snapping dog would be crushed if he failed to remove himself in time from the path of a steam-roller.

CHAPTER XVIII

FROM BEGINNING OF THE FOURTEENTH TO THE LATTER PART OF EIGHTEENTH CENTURY

IN purely political history this book has no particular interest, for many of the events that stand out most prominently in political history did not affect men's manner and methods of working in the least. Nor do we care to spend much time describing the different instruments which the workers employed to gain their ends, provided the ends were always the same.

So there comes a period ranging between, say the beginning of the fourteenth century and near the end of the eighteenth, in which a history of work finds little to record ; and this in spite of the fact that in the political, religious, and scientific worlds this was a time of tremendous upheavals and enormous changes. These five centuries saw the feudal system gradually fade away, saw the rise of absolute monarchies, saw the power of the king rise to its greatest height and crash suddenly into ruin, blown up by the French Revolution. In the religious world it saw Protestantism rise to split the empire of the Church, and destroy for ever the unquestioning faith that had led the Middle Ages to believe that in building the cathedrals they were erecting a ladder whereby they would certainly climb into heaven. In the scientific world wonderful strides forward were made, the most important

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of all being the invention of printing from movable types, which, while not by any means a wonderful scientific achievement in itself, insured the enormous advance of all the other arts and sciences by bringing learning within the reach of all men. Many of the greatest names in all history belong to this period. Great scientists, great artists and philosophers, many of the world's most illustrious captains and kings, intrepid explorers, and statesmen whose wonderful minds have influenced all the rulers of the earth ever since, lived and worked within this period and emblazoned its record with their glory. In histories of politics, of art, of religion, or philosophy, it is a time of enormous importance. But about all that a history of work can say of the v period from the end of the thirteenth century up to the year 1781 is that the ideas whose origin has just been traced steadily developed in the minds of men and gradually spread over the whole earth. Innumerable details might be given ; but the basic ideas that ruled the worker's mind were unchanged. The guilds, for instance, had been gradually abandoned, as men found it possible to gain in other ways the ends for which the guilds were designed. The restoration of order, as the power of the central government, represented by the king, increased, did away with the necessity of maintaining the guilds as fighting units to defend cities. The establishment of parliaments did away with their necessity as means of parleying with nobles and princes. The establishment of wellrecognized legal standards of weights and measures and of regulated markets relieved them of other duties. And so on. In the end they became

mere shadows of their old selves, more social organizations than active forces in the lives of the workers.

But in 1781 the old system of master-workman, journeymen and apprentices still obtained. All manufacturing was still done in small shops, in most cases in the homes of the workmen. There were no factories in the modern sense of the word, and hardly any man employed so many workmen that he could not know each of them personally. Merchants had established trading companies that sent their ships around the world and brought back the products of every nation; but not even those huge concerns bore much resemblance to modern industrial corporations.

In theory the position of the workers was probably better then than it had ever been before or than it has been since. In fact their condition was still an extremely hard one, judged by modern standards. But they were free men. In America the war of the revolution was drawing to a successful close; the theory of political democracy had been established. It was on the point of being established in France by the outbreak of the French Revolution. Within a dozen years it was to be decided for ever that the worker could be forced to yield allegiance to no man and to no institution save the government that he and his fellows set up for their mutual protection.

That is what the triumph of political democracy meant. In industry the worker already had that equality of opportunity that democracy was designed to insure. Nothing but his own sloth or stupidity could prevent the apprentice from passing through

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the stage of journeyman to the estate of masterworkman, the highest rank then existing in the industrial world. Any industrious and intelligent workman could save up out of his wages money enough to start such little shops as then constituted the only factories. It was not necessary to have a plant costing thousands of pounds before a journeyman cabinet-maker, for example, could set up as a manufacturer of furniture. In fact, a manufacturer of furniture is what every cabinetmaker's apprentice expected eventually to become. The machinery was simple and inexpensive. was worked by man-power, or by horse-power; except that the "horse" might be a donkey, or an ox, or some other domestic animal. It was a simple world, in which a strong, healthy man might make his way without encountering any obstacles that the strength and intelligence of one man might not reasonably be expected to overcome.

In 1781 a Scotchman named James Watt began to manufacture and sell what he called his "improved steam engine."

It seems a simple enough statement of a not very important fact. But in truth it is so inconceivably important that, if one regarded only the world of industry, the first three figures of the date might be disregarded and this referred to as the Year 1. For right then the old industrial world of hand-driven machinery, shop crafts, and masterworkmen came to an end. So, at least temporarily, did equality of opportunity in industry. In that year the modern industrial system began; and it has carried us so fast and so far from the conditions of 1780 that it has been said with perfect truth that the working man of George III's time was closer to the working man of the days of Homer than to his successor of George V's time, in spite of the fact that between Homer and George III were more than 3,000 years, and between George III and George V less than 150.

Yet Watt's achievement at the time did not seem of such vast importance. In their forges men had been using fire for thousands of years to help them with their work. In their grist-mills they had been using water for the same purpose almost as long. Watt did no more than make fire and water work together. He put his water in a boiler and built his fire under it; and with the resulting steam he drove his engine.

Nevertheless, he had upset the world. He had revealed to it a new source of power, the power of the elements, harnessed and controlled as it had never been harnessed and controlled before. Out of that invention of his has come every factory, every steamship, every railway-train. Although he may have had no suspicion of the fact, Watt THE FOURTEENTH TO THE EIGHTEENTH CENTURY

had released all the workmen of the world from the treadles and all the horses from the treadmills which had driven their machinery for so long. He had released women from the spinning-wheel and children from the carding implements.

But incidentally he had also taken his mastery from the master-workman, much of the joy of his craft from the journeyman, and his equality of opportunity from the apprentice. He had made the factory system inevitable, and thereby abolished the shops crafts. He put infinitely more comfort, even luxury, into workmen's homes, but at the same time he took the workmen themselves out of their homes and herded them into factories. Τo some extent he succeeded in destroying the workman's attitude toward his work as the pride of his life by making that work more and more purely mechanical. How can a man take pride in work, no matter how beautiful, when his part of it consists only in pulling certain levers, all the rest being done by the machine. And when a man takes no pride in his work, but does it only because he has to do it or starve, he is working, not as a free man works, but as a slave works; he becomes the slave of his machine.

Ever since recorded history began, men's imaginations have delighted in the exploits of certain conspicuous figures in the record until the mere mention of their names is enough to conjure up visions of splendour, of terror, or high romance. Rameses, Hammurabi, Semiramis, Sardanapalus, loom in the mists of antiquity, gigantic and grotesque. Alexander, Hannibal, Julius Cæsar, Xerxes and Ghengis Khan seem to us more than

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human. Attila the Hun, Charlemagne, even Napoleon Bonaparte stride across history's stage and the world seems to quake under their tread. And greater even than these are the masters of the mind : Socrates, Copernicus, Galileo, Luther have they not shaped the minds of men as a potter shapes his vessel? How could any human being affect the destiny of the race more profoundly than these whose towering genius gave the world into their hands to mould it as they saw fit ?

Nevertheless, not one among them has made so great a change in the lives of unnumbered millions as has this insignificant Scottish engineer. They conquered the world, they ruled the world, they captured the imagination of the world and directed it into new channels. But James Watt did work that destroyed the world as he found it, and built a new one that he himself would never have recognized.

Some of the great men named above have enslaved mankind, and others have liberated it. James Watt did both. He liberated men from certain old fears and oppressions, he made it possible, for instance, to abolish famine in civilized countries, but he also did away with the old freedom in industry. He opened the way to such comfort and ease as the worker had never known before; and he closed the door to advancement to the leadership of industry to the average worker.

Nevertheless, only the man who ignores the history of work can despair because men, having abolished one tyranny, find a new one behind it. When the nomads abolished the tyranny of the ferocious beasts by organizing under the strongest THE FOURTEENTH TO THE EIGHTEENTH CENTURY

man among them, the leader made himself a tyrant; when they abolished the tyranny of tribal chiefs, the king became the tyrant, and the emperor followed the king; when they threw down the empire, each noble became in his turn a petty tyrant; and the king again tyrannized over them when the feudal baron lost his grip. When at last they did away with political tyranny altogether, they found themselves falling into a tyranny of machines. Yet in the beginning chief, king, emperor, baron and king again each had seemed a relief from the former oppression and each was in fact a relief. The trouble was that under each the worker presently lost his joy in his work, and found it a distasteful task to which he was driven by some superior force. Under each system men had at some time considered themselves free ; and thinking so they were, in fact, free. Slavery consists, not in the slave's labour, which has usually been precisely the same sort of labour that free men perform; slavery consists in the slave's attitude toward his labour.

So it is with the new slavery that threatens the worker—slavery to the machine. As long as the worker has the slave's attitude toward his work, he will be, in all essentials, a slave in fact. If he is to be a free man, he must understand that he is free; and to understand that, he must understand that the tremendous forces that apparently control him in modern industry are in reality man-controlled, guided and directed, not, indeed, by any one man, but by an organization of men much like himself, a group of which he is, in fact, a member. But he cannot hope to reach this understanding without learning in a general way how the machine was built and how it is run.

To the making and the management of the modern industrial machine, then, let us turn our attention.

PART TWO

We tend to a mechanically perfect society in which we will either master the machine or be enslaved by it. And the only way to master it—since we cannot escape—will be by understanding it in every detail. —Gilbert Seldes, "The 7 Lively Arts."

CHAPTER I

THE GROWTH OF INDUSTRY IN ENGLAND

THE changes that the steam-engine brought into the lives of the workers were felt in every civilized country in the world. Some were affected sooner than others, and some were touched more lightly than others. In the end, however, every country felt those changes to some extent, and in every country they worked in the same general way. If, therefore, we follow the course of events in one country that has been completely won over to the new system, we shall know in a general way what has been going on in every civilized country in the world.

When one begins to look for a nation to use as an example, England immediately comes to mind, for several reasons. In the first place, England has developed the new system to such a degree that she depends upon it almost altogether. Without that system, the sort of civilization that exists there now could never have been built. Under the old system, each country produced practically all the necessities of life for itself and brought in from abroad only such things as could be done without, that is, not the necessities, but the comforts and the luxuries. Under the new system, England brings in, not comforts and luxuries only, but the greater part of her people's clothing and food, as well.

In the second place, it is from England that Americans derived their language, most of their laws, many of their customs and some of their ways of thinking. It is consequently easy for the average American to understand English history. At any rate, he usually understands English affairs better than he understands those of any other foreign country.

Finally, because the English people have had to struggle with the problems created by the new system for generations, they have done more experimenting than any others in the matter of meeting those problems and controlling the system. England serves the rest of the world, sometimes as a good example of what to strive for, sometimes as an equally good example of what to avoid. In the following pages, therefore, the rise of the industrial system in England will be sketched as a type of what has been happening in every other country.

The time of the discovery of America is accepted by general consent as the dividing line between medieval and modern history. By 1492 feudalism had fallen of its own weight, and the power of the kings had become practically absolute. The guild system had grown up in the towns until it controlled commerce altogether, and handicrafts to a large extent. It had grown so powerful, indeed, that it had become a menace to royal authority in England, and the English kings had set themselves to undermine it. To that end they persistently introduced foreign merchants and workmen into England to compete with the guildsmen. The guilds hastened the process of their own destruction

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by permitting a few of their wealthier and more cunning members to take control of their affairs, which they handled in a short-sighted manner, making it harder and harder for journeymen to become masters, and for small master workmen to compete with greater ones. Thus oppression was introduced into the guilds themselves, with the same effect that slavery had had on the ancient governments-journeymen and small masters presently found the guild not worth defending, and either deserted it, by going out into the country and setting up their shops beyond its control, or -in the case of the journeymen-openly organizing against it. This journeymen's organization, by the way, is the first true labour union, that is, the first combination of workmen against employers.

In England, then, by the beginning of the eighteenth century, the royal authority had been established so completely that there was no department of life it did not touch, and few that it did not touch directly and vitally. The guilds, indeed, remained, but they were mere shadows of their former selves. What with the introduction of foreign merchants and craftsmen under the protection of the king, the revolt of their own poorer members and the journeymen, and the loss of much of their property in the course of the Reformation, they had sunk almost to the level that they occupy to-day-mere social organizations, lacking any economic significance. How remote the guilds are from any connection with trade to-day may be illustrated by the fact that J. P. Morgan, the American banker, is a member of the London Goldsmiths' Guild, and the Prince of Wales is

a Pepperer, that is to say, theoretically a dealer in spices.

With the gradual decline in power of the guilds the system of manufacture had undergone a change. When the master-workman bought his own raw materials, worked them up with the aid of his own journeymen and apprentices in his own shop, and sold the product direct to the consumer, the arrangement was known as the handicraft system. The master-workman was broker, jobber, wholesaler, retailer, contractor, and manufacturer all rolled into one. In the case of the goldsmith, who had strong vaults for the protection of his valuable materials, he often added to these activities that of banker to the community at large; which partially explains the gradual transformation of that guild until Mr. Morgan is regarded as eligible to membership in it.

However, when the poorer master craftsmen began to find it impossible to make headway against the competition of their wealthier colleagues in the great towns, and proceeded to set up their shops in the villages, they found themselves under a double handicap-they had at hand neither markets in which they might purchase raw materials, nor markets in which they might sell the finished product. Then appeared an enterprising middle-He first became prominent in connection man. with the cloth industry, whence came his name of Clothier. He developed the habit of going into the country and buying large quantities of wool. This he would distribute among various weavers not in the guild, who would work it up into cloth; and this cloth the clothier would sell in London,

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or export. The weaver received pay for his work; but he lost the profit from the sale of the cloth. Thus his functions narrowed down to the single one of manufacturing for the clothier. This arrangement was carried into other industries and gave the guilds their final blow. It was called the domestic system.

Under the domestic system the individual workman had attained a position in which he counted for more, perhaps, than ever before in history. Nevertheless, he was far from being a free man. The hand of the king was heavy upon him. Not only was he taxed by the national government, but the minutest details of his business were regulated by it. As a master craftsman he found the purchase price of his raw materials fixed by the government, and the selling price of his product fixed by the same authority. Furthermore, there was an elaborate set of standards to which his work must measure up; and failure to turn out goods up to standard was attended by terrific penalties, including in some cases death. As a wage-earner he found himself under a Statute of Apprentices which regulated his conduct, his conditions of labour and his contract with his employer to the minutest detail, and which was frankly intended to keep him in his place. There were even laws regarding the sort of clothes he might wear, not like our police regulations requiring people to be decently covered when they appear in public, but prescribing the fabric, and the colour and the cut. And even when he died he was not quite free, for there was a requirement that he be buried in a woollen shroud.

Such interference would not be tolerated for a moment now, but people then were used to it and regarded it as a legitimate part of the government's business. Nevertheless, even then it was realized that so much governmental restriction was a tremendous handicap on the free exchange of commodities, and a handicap on the workman seeking the place where he might work most comfortably and most profitably.

The king found it to his interest to encourage certain great trading companies, which sent English ships to every corner of the world, and founded English colonies all around the globe. But his attitude toward the common people in his own realm was one of suspicion and distrust. Some of his laws were designed to encourage certain lines of business or certain trade, but it was invariably done by ruthlessly suppressing competition; and the bulk of the statutes were harshly repressive. The government was prodigiously interested in suppressing thieves and cheats; but its attitude was that it was better to punish a dozen honest men than to let one dishonest one escape. That attitude, of course, made it terribly hard on everybody.

Still the notion prevailed that it was the business of the government to run the country; and while there was much aistress and some unrest under it, that idea was never successfully challenged up to the latter half of the eighteenth century.

CHAPTER II

THE DOCTRINE OF THE RIGHTS OF MAN

INTO the drilled and regimented world of the latter half of the eighteenth century, a world in which the king's authority was not only supreme, but all-pervasive, touching the most intimate detailsof every man's life, there swept a new doctrine, like a great wind, driving fogs and mists before it, lashing stagnant waters into furious activity, and often leaving devastation in its wake. This was the doctrine of the rights of man, formulated ages before, but now for the first time seriously applied to the case of every man, high and low, rich and poor, learned and ignorant, bond and free.

The first old system to fall before this storm was British colonial rule in America. Britain had regarded her colonies in the western world as in the nature of an investment, to be ruled and regulated in such ways as might be most profitable to the mother country. The average Englishman, without giving much thought to the matter one way or the other, no doubt regarded this as altogether a reasonable view, not stopping to think that from the standpoint of the colonists it was pretty sure to seem tyrranous. Therefore it is reasonable to believe that most Englishmen were intensely surprised when the colonists rose in wild revolt, declaring that all men are created equal and en-

dowed with the inalienable rights of life, liberty and the pursuit of happiness; "that to secure these rights Governments are instituted among Men, deriving their just powers from the consent of the governed. That whenever any form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness." Such doctrines seemed absolutely, insane to many well-disciplined Englishmen; but seven years of desperate resistance to the king's armies proved that the colonists meant what they said; and the longer the mass of the English people studied the assertions of the colonists, the more reasonable those assertions appeared to be. A strong American party therefore arose in England, which, added to the intervention of the French in behalf of the colonists, had much to do with inducing the government to abandon the struggle and let the revolting colonists go.

But the doctrines enunciated in the American Declaration of Independence were by no means original with Thomas Jefferson, nor with any other American. For years—indeed, for centuries they had been held by philosophers in various parts of the world; but in the eighteenth century they had been preached with conspicuous force and clearness by a group of Frenchmen, from whom the Americans in large measure adopted and adapted them. The fact that the effect of this preaching was felt in America before it was felt in France was due to the peculiar situation of the Americansthree thousand miles from the central authority, and with their respect for inherited rank weakened by the conditions of pioneer life and their sense of the importance of the individual man strengthened by the same conditions.

America at that time had not become the cosmopolitan country that she is to-day. The great bulk of Americans were simply transplanted Englishmen, and they reacted to the new idea in a typically English way; that is, they selected so much of the doctrine of the rights of man as seemed applicable to their immediate need, without feeling under any necessity of working it out to its logical extreme. They proclaimed that all men are born equal, with certain inalienable rights, among which are life, liberty, and the pursuit of happiness; and by that doctrine they justified their destruction of the authority of the English king, and the substitution of their own will in its place. But they did not carry it to the length of freeing their negro They did not even go so far as to give slaves. to all white men an equal voice in the government; for many years after the American Revolution a man, in most of the states, had to own a specified amount of property before he could vote. American adhesion to the doctrine of the dignity of the individual, in other words, was cautious and conservative, if not exactly half-hearted.

The French, however, accepted it in a different way. The royal authority in France was even more complete, and the royal exactions heavier, in France than in England. French philosophers, observing the tyranny and oppression of the royal government, and being but imperfectly acquainted with the history of politics, came to the conclusion that government regulation of men's lives was in itself evil; and while most of them admitted that a certain amount of regulation is indispensable in order to suppress the lawless, they reasoned that the closer man could come to existing without any government, the happier he would be.

It is to be noted carefully that these theories were worked out while the royal authority still existed. They were matters of pure logic, since there was no chance of testing them out by experience. But the French are great logicians, and this doctrinaire reasoning appealed to them strongly. In the upper classes there were many young men who were sincere and enthusiastic idealists, conspicuous among them being the Marquis de Lafayette, who had fought with the Americans against the British, and had seen democracy actually started on its trial in the New World. These actively fomented a revolt against the old system, and looked forward with the highest hopes to the bestowal of complete freedom on every man in France.

The revolt came, all right, but when it arrived it was a good deal more than the idealists had bargained for. Six years after the American war had ended, on July 14th, 1789, to be exact, there was a riot in Paris that ended in the destruction of the Bastille, a great prison in which political prisoners were held; and from that the flames of revolution spread until the whole country was ablaze. But the French were not content with dissolving the royal authority; they destroyed the whole system, and the king with it. The rest of Europe, horrified, rose against the French; which action the French promptly attributed to the schemes of their old nobility, and proceeded to hunt down every nobleman they could find and cut off his head. In their frenzy of fear and rage they executed many of the very men who had worked hardest for the liberation of the people. Even Lafayette was forced to leave the country. This reckless blood-letting, in turn, convinced the rest of Europe more firmly than ever that France had gone mad, and must be restrained at any cost, and the nations poured army after army across the French border. Furiously beset on every side, facing a continent in arms, France finally pinned her hopes on one man, an officer of supremely great military genius, Napoleon Bonaparte. He defeated one enemy after another, and with every victory his personal prestige rose higher; until at last it grew so great that it overshadowed the state completely, and he made himself emperor with the enthusiastic support of the people who had just destroyed one autocratic system.

Thus the doctrine of the rights of man carried to an extreme over-reached itself. It was more than 25 years after the revolution began before Napoleon was finally beaten down by the combined efforts of all Europe; and the republican idea did not revive in France for 15 years after that.

Nevertheless, the uproar had centred the attention of the whole world on the doctrines of the revolutionists; and the more men considered them, the more sensible some of them appeared to be. The process that had raised an American party in England now was reproduced in all the countries of Europe. Royal authority everywhere began to wane. Everywhere men began to believe, and to say, that the individual has a right to live his life in his own way, with as little interference as possible by the government.

CHAPTER III

WHAT OF ADAM SMITH ?

WHAT did all this have to do with the way in which men worked?

Nothing, directly; but the political disturbances and the triumph of the idea of the rights of man prepared men's minds to accept any doctrine that held liberty as the highest good. Because political power was vested in the king, and because the king interfered by innumerable laws and regulations with almost every activity, there was no clear distinction between political and economic power. Therefore men who believed that non-interference by the government in political affairs was highly desirable were easy to convince that non-interference in economic affairs was equally desirable.

Even before the outbreak of the French Revolution this doctrine found an exponent in Adam Smith, a Scotchman who had been in close contact with French thinkers, and who, in fact, wrote in Toulouse his famous book, whose long title is usually abbreviated into "The Wealth of Nations." This book, while not the first, was by far the ablest of a series of studies of the processes by which nations acquired wealth and power or fell into decay. It was written in language exceedingly clear and plain, it showed the author to be possessed of an enormous amount of information, and its reasoning—granting the truth of its premises—was logical and sound. Naturally, it made a tremendous impression, one that was heightened as the years went by and one political cataclysm after another seemed to bear witness to the truth of Smith's arguments. So "The Wealth of Nations" came to be, to a large extent, the basis of the new science of political economy.

To a generation fanatically devoted to the ideal of human liberty, nothing could have been better designed to appeal irresistibly than Adam Smith's declaration that "the patrimony of a poor man lies in the strength and dexterity of his hands; and to hinder him from employing this strength and dexterity in what manner he thinks proper, without injury to his neighbour, is a plain violation of this most sacred property. It is a manifest encroachment upon the just liberty both of the workman and of those who might be disposed to employ him. As it hinders the one from working at what he thinks proper, so it hinders the other from employing whom they think proper."

That declaration was so clearly in line with the prevailing trend in politics that the man who made it was certain to be listened to with attention.

Malthus, Ricardo, James Mill, and others buttressed the conclusions that "The Wealth of Nations" had reached by their researches in various fields; and among them they erected a theory of economics so powerful that after a hundred and fifty years it has not been altogether battered down.

That theory, roughly sketched out, was this: that economic relations are largely governed by "natural" laws, immutable and quite outside of human control; that while it is possible for governmental interference to modify the operations of these laws, it is altogether impossible for it to change them; that while the operation of a given law may even be halted at a particular point, like a stream dammed at a certain place, it will inevitably break out at some other point, just as the stream will cut itself a new channel. It followed, therefore, that governmental interference with the workman was not only "a manifest encroachment" upon his "just liberty," but was also bound to prove futile in the end.

An illustration, cited by Cheyney, is the matter of the woollen shroud. The law requiring that every dead man should be buried in a woollen shroud was first passed with the idea that it would have the effect of providing more work for the weavers. But why, inquired the economists, provide more work for the weavers ? If the weavers are found to have plenty of work at good wages, that simply will induce a greater number of men to quit other occupations, farming, for instance, in order to become weavers. Therefore, while you may have more woollen cloth, you will have less wheat ; and what the weaver gains in wages the increased price of his bread will cost him. By offering special encouragement to the weaving industry you do not increase the amount of labour done in the country ; you simply transfer labourers from one occupation to another. This was considered proof that attempts to encourage particular industries by law were wasted effort.

Ricardo worked out a law of wages which asserted that wages tend constantly to the level at which the worker may subsist and perpetuate his race without increase or diminution. If wages are raised artificially beyond this point, he argued, the worker will be able to raise more children ; and the increase in their number will mean increased competition for jobs, which will soon force wages down again. If wages are artificially lowered, some of the workers will starve, and presently there will be so few that employers will bid against each other for their services, thus forcing wages up again. This was considered proof that governmental interference with wages is futile.

Malthus worked out a theory of population, based on the observation that while population increases in geometrical ratio, the production of food increases only in arithmetical ratio. He therefore deduced that poverty in old countries is inevitable on account of the pressure of population on subsistence. This was considered proof of the uselessness of efforts by the state to abolish poverty.

All the work of the economists therefore tended to discredit the old system of governmental regulation and to encourage the new theory of *laissezfaire*, which is to say the theory of "let-italone."

The fact is that a good many of the old regulations had been so plainly contrary to common sense that they had hardly been enforced at all; and most of them had been enforced only spasmodically. Therefore, the respect of the people for them was none too strong to begin with; so when they were assailed on three sides at once, first, as encroachments on men's just liberties, second, as complications of civilization separating man from the state of nature which was considered true happiness, and third, as foolish and futile attempts to overthrow natural laws, they promptly collapsed.

Thus just before the beginning of the nineteenth century it seemed that the individual man was about to step into the enjoyment of pure freedom. It had been five thousand years and more since men had died like flies under the lashes of Egyptian overseers; they had struggled incessantly, if blindly, toward freedom; but during all those centuries they had seemed to do no more than blunder from one tyranny into another. Pharaoh, king, emperor, feudal lord-the master's title had changed with the changes in time, but always there was a master; and indeed until now the bulk of mankind had accepted it as a matter of course that there must always be a master. Only at the end of the eighteenth century had man reached the point of intellectual development at which he was able to stand upright and declare himself free.

Yet even at the moment when the last stronghold of political power was crumbling, and it seemed certain that the worker would at last find himself in a world in which he might work after his own fashion for his own benefit, without let or hindrance from any quarter, James Watt was fashioning a new master for the worker, preparing a new trap into which he was to plunge headlong, and from which he was to win to freedom again only by dint of a long and bitter struggle.

CHAPTER IV

MAN AND THE MACHINE

YET at the time nothing seemed less probable than that the contrivance of the engineer, Watt, should be able to perpetuate man's servitude. On the contrary, it seemed to offer release from all drudgery; and it was rapturously hailed as the beginning of a new Golden Age, the time referred to by Aristotle, "when the shuttle should move itself" and the slave should be free.

Power had been man's lack through all the long struggle up from savagery. Weapons and tools he had brought to a remarkable state of perfection, and he had even devised some machines. After four thousand years the distaff, for instance, had given place to the spinning-wheel; and a few years before Watt perfected the steam-engine James Hargreaves had perfected a device whereby one spinning-wheel could be made to turn a number of spindles; Richard Arkwright made a similar machine that would work even faster than Hargreaves' "spinning jenny"; and Samuel Crompton took the good features of both and combined them into a machine called the "mule" that was better than either. But while these machines would work faster than human hands, they were very heavy, and it took tremendous strength to drive them.

That was the difficulty with all machinery. A machine is a tool set in a mechanism that guides

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and controls its operations. A needle, for instance, is a tool; guided and controlled by hand its operations require so little strength that a small child can manage it. Set in a sewing-machine, it works enormously faster and more accurately, but it takes much more strength to run the sewing-machine than to sew with the needle. A shovel is a tool, which one man's strength is sufficient to handle; a steam-shovel is a machine, which does more work than scores of men, but the combined strength of all the men it replaces would not be enough to run it.

Men were in fact clever enough to invent machines before 1781; but what was the use? Unless the machines were quite small, there was not power enough available to drive them, after they were made.

This is the lack that James Watt's invention supplied. In place of the strength of men, or of animals, he supplied the power of steam. To Crompton's mule, to Cartwright's power loom, he hitched, instead of a team of horses, his steamengine, stronger than dozens of horses; and immediately it became worth while to invent and to build machines. It was no longer necessary to worry about the power required to make them go. The steam-engine could move the heaviest of them.

There had, indeed, been water power before the coming of steam, and a certain number of textile mills, using the new machinery, had been built along the banks of swift-running streams. But the trouble there was that it was necessary to take the machines to the power. Swift-running streams are not found in the midst of cities, or often by the side of roads, but usually in the high hills, in inaccessible places—hard to get into and hard to get out of. Not only did the heavy machines have to be carried into such places, but all raw material had to be hauled in, and all the finished product hauled out; which often was so expensive that the goods might have been made as cheaply by hand in town.

The great advantages of steam was that the power could be brought to the machines. The machinery could be set up in the heart of the city, where there were plenty of workers, and the steam-engine could be attached to it right there. The world's great need of something to substitute for human muscle or the strength of draught-horses was supplied.

Immediately beautiful dreams captured the imaginations of men. Adam Smith had shown that the wealth of nations does not consist of gold and silver coins and banknotes or any form of money, but in the goods that nations acquire or produce. Money is valuable, not for itself, but on account of what it will buy; the things that money buys are the real wealth. But the things that money buys are all produced, in one way or another, by the labour of men. Even the things that are found in the earth ready for use, such as coal, have to be dug up by workers in the coal mines. So in the last analysis labour, the strength and skill of its workmen, constitutes a vast proportion of a nation's potential wealth.

Now, said the dreamers, here is a contrivance that, with a couple of men to run it, furnishes more power than hundreds of men. On the other hand, here are machines that, given power to drive them and a handful of workmen to look after them, can do more work and do it better than hundreds of handicraftsmen. When we hitch the engine to the machines, for every workman we employ we receive many times as much goods and many times better goods than we got for every man we used to employ to work by hand. In other words, the labour of workmen working with machines is enormously more productive than it ever has been before. Is not the nation then enormously wealthier than it ever was before ? Is it not, indeed, so rich that we shall be able to produce all the goods we need with comparatively little labour, and have such an oversupply that nobody need suffer for anything ?

It was a plausible line of argument, and there was a solid foundation of fact in it. The nation's wealth, as measured in the goods which money is intended to buy, was increased enormously. The productivity of each worker rose so tremendously that the people engaged in cloth-making to-day produce more cloth than all the men, women and children in the world could produce by hand methods, if they all worked at nothing but making cloth. Furthermore, practically nobody now works regularly 14 hours a day, as many artisans did in the eighteenth century, yet there are far more goods in the world than there were then.

But the rest of it didn't work out so well. With all our vast supplies of wealth, people still live in direst poverty in every country under heaven. The worker works shorter hours, it is true, but he is still far from being free of the necessity of working; and in millions of cases he has to work at tasks that he dislikes, and sees no hope of ever changing. If he does not go to his work every morning starvation stares him in the face. True, the king no longer assumes to dictate what he shall wear, and where he shall work, and what wages he shall receive; but circumstances generally do. And what is the difference, says the workman, reasonably enough, whether I am ruled by the king or by circumstances, as long as I am ruled without my own consent?

The difference is that the rule of circumstances is not as rigorous as was that of the king, and tends to become less rigorous with every year that passes. The difference is that no man could hope to bend the king to his will except by the desperate business of revolution, or the threat of revolution; whereas when men thoroughly understand their circumstances they can always find means to better them. The difference is that the workers, as a class, now have in their hands power to control their own destiny whenever they set themselves to apply that power intelligently. The difference is the difference between a man lost in a thicket and one confined in a dungeon-the former can get out as soon as there is light enough for him to see his way. Ιŧ is the difference between hope and despair.

But until the worker understands how he came to be where he is, and which way he seems to be travelling at present, his chances of adopting intelligent and successful methods of bettering his condition are small. That is why it is so enormously important for the modern worker to familiarize himself with at least the main features of the economic system which holds him in its grip, and with the way in which that system came into existence.

CHAPTER V

THE INDUSTRIAL REVOLUTION

THE introduction of machines driven by steam power marks the beginning of what is known to economists as the Industrial Revolution, so called because it swept the domestic system of manufacturing out of existence almost as fast as the autocratic political system was swept out of existence by the French Revolution.

Incidentally, it was attended by as much bitterness, as many misunderstandings, and, while there was not as much actual bloodshed, by as much genuine suffering as was the great upheaval in France. Like the French Revolution, it disappointed its friends; for instead of ushering in the Golden Age it seemed, during the first few decades, that it was destined to carry man back to a worse slavery than that from which he had escaped. Indeed, in at least one instance it did actually establish a slave system on a firm foundation. Among the important inventions of the time was one contributed by an American, Eli Whitney, who invented the cotton gin, a machine for separating the cotton lint from the seed, an operation that up to that time had had to be done slowly and carefully by hand. The process cost so much that raising cotton was not a very profitable business. But once a process of ginning it rapidly and easily was discovered, cotton-raising became immensely pro-

fitable. Now the bulk of the cotton grown in the world was raised by the labour of negro slaves in the southern United States. Up to the time of the invention of the gin, slavery all over America had shown a tendency to decrease; after the introduction of the gin it continued to decrease in the north until it finally vanished; but in the south the gin had made slave labour in the cotton fields so valuable that the south held on stubbornly to her slaves for seventy years after the invention of the cotton gin, and even then they were freed only at the price of a terrific civil war. Thus the introduction of machinery, which was to produce the Golden Age, indirectly was the means of prolonging the only important slave system that still existed in a civilized country.

But its direct effects, in the beginning, were hardly less lamentable. Steam power was first applied extensively to spinning and weaving machinery, and the factory system first developed in the textile trades. But what happened to the weavers was, generally speaking, what happened a little later to all other artisans who plied their trades under the domestic system. They were forced to go to work in the factories, when they were not forced out of the trade altogether, and lost their independence when they did not lose their livelihood.

It was obviously impossible for each weaver to set up steam-driven machinery in his own little shop, for the machinery, in addition to being heavy, was enormously expensive. Only occasionally did even a very rich man build a cotton factory and pay for it out of his own pocket; the usual procedure was for a number of persons to put their money together to build the factory, and to divide the profits according to the amount each had put up. But weavers rarely had any spare money to put into one of these "joint-stock companies." The clothier might have it. The merchant might have it. The nobleman who collected rents off a vast estate might have it. But the worker did not.

On the other hand it was impossible for him, with his little hand-operated loom, to compete with the huge machines, driven at terrific speed, in the factories. One power loom might weave a hundred times as much cloth in a day as he could; but it did not cost anything like a hundred times as much to operate the power loom as his wages would amount to. Therefore the product of the power loom could be sold much cheaper than his, and still the owner would make huge profits.

To illustrate the principle, let us take an entirely arbitrary set of figures and work it out. Suppose that the weaver's hand loom used up daily an amount of raw material worth five shillings. Suppose that the weaver figured that his work was worth five shillings a day. It is obvious, then, that the clothier, who furnished the raw material and paid the weaver, must sell the cloth for ten shillings before he touched any profit for himself. Suppose there were five yards of cloth; it must sell, then, for two shillings a yard, plus the clothier's profit.

(At the Atlanta Cotton Exposition of 1881, two carders, two spinners, and one weaver, from the mountain regions of Georgia, could produce eight yards of coarse cotton cloth in a day of ten hours. The same number of persons in a modern cotton factory could produce 800 yards by machinery.)

Turn, then, to the machine. It would use up a hundred times as much raw material, that is f_{25} worth. One weaver, as a matter of fact, can run a number of power looms; but to make it a generous estimate, let us suppose that, what with the wages of the weaver himself, and a proportion of the wages of the engineer, foreman, superintendent and other workers, and of the rent of the factory buildings, interest on the investment, and all the other expenses of the factory system, the total cost of running one loom ran up to 25s. a day. The total expense, then, would be £26 5s. against 10s. for the weaver at the hand loom. But instead of five yards, there are 500 yards of cloth. If it still sold at 2s. a yard, the clothier would get \pounds_{50} for it; out of which he would be able to pay expenses and have £23 15s. profit. He could sell it at 1s. 6d. a yard and still have £11 5s. profit; while if the hand weaver sold his at 1s. 6d. a yard that would cut his wages down to 2s. 6d. a day.

There was nothing, then, for the weaver to do except hire himself to the owners of the factories, when he could. That meant that he lost his independence, for he must henceforth report for work when the whistle blew and the machinery started; and he must work where and when the foreman told him to.

In the early part of the nineteenth century it had an effect even more disastrous, in England; for the development of the factory system came suddenly, and factories were built faster than markets for their product were opened up. Therefore, when one machine began to do the work of 100 men, while not more than one man was needed to operate the machine, it was not possible at first to provide work for the other 99. The introduction of machinery therefore resulted in much unemployment.

This was the first effect that the workers observed and they presently concluded that it was the only effect that interested them. Therefore in many places they rose up against machines and factory owners, smashed the machines and burned the factories. But that resulted only in the coming of the police or soldiers to disperse the rioters. The ringleaders went to prison and the factories were rebuilt.

So within a few years after the perfection of the steam engine it came to be a rare thing for a workman to make his living with his own tools. In some trades-carpentry, for instance, and bricklaying and plumbing, the building trades in general, and for a long time in agriculture-machinery was not of much importance, and those artisans worked, and still work, under something like the old conditions. But in the main "the instruments of production " as they are called had passed from the ownership of the workers into that of the men who built and controlled the factories. But the latter were in many, if not most, cases not men at all, but joint-stock companies, whose stockholders might be scattered over the entire country. So the old personal relation between master craftsman, journeyman and apprentice disappeared. Instead of having a friendly, perhaps, intimate, relationship with his employer, the workman had no notion who his employer might be. He knew the foreman, of course, and probably the superintendent; but they were employees, like himself. With the vague thing called "the company" it was impossible to have any personal relation.

So the average worker, in the beginning of the nineteenth century, found himself in a position not unlike that of the citizen of the first century, whose whole life was ruled by Cæsar at Rome—he was dependent upon some far-off power that he could never hope to see, and that he comprehended but dimly.

Furthermore, it proved to be a ruthless and tyrannous power. Adam Smith had seen to that. But the Scotchman's unwitting influence for evil on industrial life is worth considering in a separate chapter.

CHAPTER VI

WHEREIN ADAM SMITH FAILED AS A PROPHET

A^S an economist the only thing that Adam Smith lacked was the gift of prophecy.

He could see what lay before his eyes, and he could reason clearly upon it; but he could not pierce the veil that concealed the future, he could not estimate the value of forces that were already operative in his own time. He had no suspicion that the very foundation upon which he based his whole theory was within five years of the publication of his book to be blown up by the boiler of his fellow-Scot, James Watt.

Adam Smith—and with him the whole school of the early economists—proceeded upon the theory that one labourer was one man, never dreaming that Watt was at that moment preparing to convert him into a sort of djinn, capable of performing every day the work of a hundred labourers of the preceding century. Adam Smith assumed also that the labourer was a reasoning being, who, left to his own devices, would proceed to work at the trade he liked best and in the manner that he liked best; and the Scotchman had the wit to perceive that this would result in the labourer's producing the best work of which he was capable and the most of it.

The thing that restrained the workers from doing just this was, in the eighteenth century, the authority of the king as represented in the innumerable statutes governing commerce and labour. Therefore Smith proceeded to demonstrate that these oppressive statutes were defeating their own end, that they were not facilitating the expansion of business, but actually hindering it; and he argued for the release of labour from all restrictions whatever. "The patrimony of a poor man lies in the strength and dexterity of his hands," he proclaimed, and demanded for the poor freedom to employ that patrimony in whatever manner he thought best.

This was all very well as long as the patrimony of a poor man did lie in the strength and dexterity of his hands; but only a few years after Adam Smith wrote those words the case was radically altered, because the instruments of production, the tools of most trades, no longer depended upon the strength and dexterity of the workman's hands, but upon the excellence of the machinery to which they had been transferred.

Likewise, the assumption that one man was capable of a certain amount of labour, the extent of which could be pretty accurately judged in advance, and that the amount of work that could be done in England could be approximately calculated by counting the number of labourers, also fell to the ground. The possible amount of labour, or, to be accurate, the production of goods possible, depended much less on the number of workers available than upon the development and utilization of machinery. Adam Smith had not counted on that.

Again, the assumption that if the political restrictions that hampered him were removed the

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worker would be free rested upon the assumption that none but political authority had power to compel the workman to act against his will. Under the economic system then existing that was largely true. What Adam Smith did not take into account was the fact that that economic system was then on the point of vanishing, to be replaced by forces never known in the world before.

Thus we come to one of the most appalling ironies in all history : Adam Smith, the apostle of industrial freedom, did his work so magnificently that he enslaved the industrial world for fifty years and more l

Looking back upon it, it is easy to understand. The world, in the last quarter of the eighteenth century was fairly mad upon the subject of individual liberty. Thrones were tottering, ancient tyrannies were crumbling everywhere; so when the economist shouted for industrial freedom, his cry was instantly caught up and echoed throughout the world. In the thunderous years that followed, when the political world rocked under the impact of the armies that Napoleon hurled against it, men had no time to consider carefully the significance of the new industrial system that was swiftly taking over all their work. The new machines were releasing men by hundreds of thousands to fill the armies that were battering at the ring of steel that surrounded France. That, in itself, was enough for the average man to know about them; it satisfied him perfectly. Then when, by unheard-of efforts of a united world, the French emperor was finally beaten down, the spent and gasping nations found nothing more beautiful than the doctrine of laissezfaire. They cared little who ruled, or where, or how. From 1789 to 1815 there had been practically incessant warfare in Europe; and after twenty-six such years peace was the fairest vision that could be presented to men's minds.

Consequently, when the workers complained that they were in the grip of economic forces that they could in no wise control, and talked of combining and rising to demand a greater measure of justice, the nations had visions of another French Revolution. They read in the book of Adam Smith that the government should in no wise interfere with industrial relations, and agreed with all their hearts. They wished to interfere in nothing. They desired only to let things alone and be let alone. So they turned furiously on the complaining workmen, and smashed every effort at revolt.

The new industrial organization, the factory system, had reached its highest point of development in England, which had not been ravaged by the fighting armies. America, in 1815, was still largely a wilderness, and in the devastated countries of Europe the factory system was only in its beginnings. So it is in England that this period is most worthy of study; and in England the half century between 1815 and 1865 is one of the darkest periods in the history of industry.

It was not the Golden Age, nor the Silver, nor even the Brass Age. It was the Age of Iron. The policy of *laissez-faire* was triumphant. The state took no interest in industrial problems; and by the state is meant, not merely the government, but public opinion. The workman had a com-

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modity, his labour, to sell, just as he might sell beans, or potatoes. If the market for labour happened to be glutted, why, that was his hard luck. If someone purchased his labour and then put it to uses which the labourer did not like, why, that again was his hard luck. The state was not interested. Or in theory it was not interested actually advantage was taken time and again of the old statutes against labourers that had survived unnoticed on the statute-books even after the ancient Statute of Apprentices had been repealed.

On the other hand, competition grew tremendous, and forced factory-owners to expedients that otherwise they might never have adopted. Hours were stretched out incredibly. The twelve-hour day was the minimum, and work days of 14 and 15 hours were not uncommon. Women and children were worked with a brutality that is now incredible. Especially heart-rending was the fate of pauper children, who were lamentably numerous. They were "bound out" to factory owners, were put in the mills at seven and even six years of age, were worked day and night in twelve-hour shifts, under overseers who would whip them to their tasks. They were given wretched kennels in which to live. were half-starved and were compelled to eat some of their meals at the machines. They were even compelled to clean the machinery while it was still running. Perhaps the most fortunate among them were the thousands who died, either of ill-treatment or by being mangled in the machines. The others grew up stunted in mind and body, mentally and physically warped and twisted, dreadful caricatures of men and women.

THE EVOLUTION OF LABOUR

Such was the appalling outcome of Adam Smith's dictum that society could not regulate industry without running counter to immutable natural laws which would render all its efforts fruitless. He tried to, and in large measure did, free men from bondage to a political tyrant; but only by selling them into bondage to an economic devil.

CHAPTER VII

THE FACTORY SYSTEM AT THE BEGINNING OF THE NINETEENTH CENTURY

IN the beginning of the nineteenth century England had already taken rank as a nation as highly civilized as any in the world. The horrors of the early English factory system, then, are not to be regarded as due to the natural depravity of the people. Looking back upon the terrible conditions under which the employees of the factories worked, it is easy to fall into the error of imagining that the owners of the factories must have been singularly vicious and brutal men.

As a matter of fact they were, for their day, highly enlightened. They simply had on their hands conditions which they did not understand, which no man understood, and with which they were consequently unable to cope. This is not to be understood as an assertion that there were in those days no avaricious and brutal employers in England. There were plenty of that stripe. There always have been. But the wicked employer was then, as he is now, in the minority. The difficulty was furnished by the honest, but ignorant employer; and all of them were ignorant, because the new industrial system had developed so suddenly that they had not had time to learn it.

To increase suddenly the productivity of labourers a hundred times upsets everybody. Factory owners found themselves in position to turn out unheard-of quantities of goods before they had had time to develop means of disposing of those goodsprofitably. Commerce, as we know it now, was still in its infancy. The expense of transporting goods was still so enormous that the goods had to be highly valuable to be worth their freight. At the beginning of the nineteenth century the bulk of foreign products brought into England—or any other country—consisted of luxuries, with a few comforts, such as sugar, coffee and tea. Nobody had ever dreamed that the time would come when English labourers would be fed on beef brought from South America, and bread made from wheat grown west of the Mississippi river.

Neither would it have been believed that Lancashire cotton factories would some day be disposing of their product in Peru. England had, indeed, exported cloth to Flanders and other near-by countries for centuries. That experience now stood her in good stead, but the trifling amount of goods that her established customers could handle was nothing by comparison with the enormous quantities she was beginning to turn out.

English manufacturers were therefore under the necessity of opening up vast new markets, all over the world. That is no simple task even for men with long commercial experience behind them; and these men, remember, had practically none. Naturally, they made frightful mistakes, which cost them enormous sums. This made them feel that they were walking in slippery places and left them little inclination to study the welfare of their employees.

FACTORY SYSTEM OF THE NINETEENTH CENTURY

In addition to the problem of marketing, or, rather, as a complication of the problem of marketing, they had on their hands the problem of financing as employers have it on their hands to this day. Between 1800 and 1850 the commerce of the world almost trebled, and within the next ten years it almost doubled again. As we shall see a little later it took unbelievably great sums of money to handle all this business, and the average employer of the day was without experience in financial operations of the size required. The employer, as much as his workmen, was on new ground. There were so many problems demanding his attention that it is no wonder that he was thankful to let alone everything that he could let alone.

But more important than any of these things, or than all of them put together, was the influence of the doctrine of laissez-faire, which in business simply meant "every man for himself and the devil take the hindmost." Quite enough selfishness is born in most of us, but in the nineteenth century selfishness had been raised to the dignity of a creed. Men really believed that it was contrary to laws established by God for the state to attempt to regulate industry in the interest of the mass of the people. Adam Smith had established that fact. Then Ricardo had come along and established the law that wages tended to the lowest level at which the worker could live, and Malthus had proved that poverty is inevitable. So the average citizen, while he might deplore conditions in the mines and factories, was honestly convinced that there was nothing he could do about it, and went on his way.

Furthermore, imperfect understanding of the

new economic forces that were unleashed led to bitter and destructive wars between employers— "cut-throat competition," as it was called. The principle illustrated by the case of the weaver with a hand loom attempting to compete with a power-loom that turns out goods a hundred times as fast, since described as "quantity production," was discovered, but not fully understood. Modern systems of accounting had not been introduced, and often it was impossible for a manufacturer to tell exactly what his goods did cost him. Consequently, in trying to sell cheaper than his competitor, he was liable to make the mistake of selling below cost, thereby ruining himself and perhaps his competitor as well.

Added to his other troubles was the extreme difficulty of communication. In 1827 it cost 4d. to send a letter not over 15 miles, 8d. for 80 miles, 1s. for 300, and so on. Penny postage was not introduced into England until 1840.

This was a double handicap in that it interfered with the transaction of business, and also interfered with the spread of ideas. Evils such as child labour, for example, cannot be corrected by individual effort; for even if one manufacturer refused to employ children for long hours, his less scrupulous competitor in the next town certainly would employ them, with the result that the humane man would be forced out of business. The only way to stop such abuses is to stop them all together, in every factory on the same day, so that no one may have an undue advantage.

But this presupposes that the whole country is to act together, presumably by legislative enactment;

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and such concerted action, in turn, presupposes that everybody has a pretty good idea of what the row is about-what evil is to be attacked and how it is to be overcome; and a whole nation cannot conceive such a common idea unless there is quick and easy communication among all its parts. In other words, the difficulty of communication in the early nineteenth century prevented the development of what we now call " the social mind." The social mind is distinguished by its adherence to the belief that as the evils that afflict great masses of mankind cannot be attributed to the wickedness of any one man or group of men, so they cannot be cured by any one man, or group of men, but must be attacked by the community, acting as a unit. This idea was almost, if not entirely, absent from the thinking of the men who controlled the earliest factories, so it is no wonder that they regarded with fatalistic indifference horrors that would shock the world to-day.

Indeed, when you consider their limitations and their enormous handicaps, it is impossible to regard the leaders of industry of that day as monsters of iniquity. On the contrary they were, as a class, perhaps the most liberal minded among the men of their day who took any active part in the direction of the affairs of the world.

In their endeavour to set up the new system, they created a new sort of labour and a class of workers which, while it numbers few members, yet exerts such a tremendous influence upon the modern world as to have become, in some sense, its overlord. This is the class of commercial executives, which must have a chapter of its own.

CHAPTER VIII

THE MACHINE AS A PRODUCER OF WEALTH

WHATEVER may have been its failure to increase noticeably the sum of human happiness, the age of machinery did all that was expected of it, and more, in the matter of increasing the actual wealth of the world. There was an eastern king, long before the dawn of the Macedonian empire, who amassed such a fortune that, although his reign was ancient history two thousand years ago, his name to this day is a synonym for Yet a simple American citizen, Mr. wealth. Andrew Carnegie, before his death gave away enough money to buy up everything King Cræsus had 47 times; and another American, Mr. John D. Rockefeller, has given away 70 times as much as Crœsus' fortune. "As rich as Crœsus" really meant something up to the beginning of th nineteenth century; but to-day his fortune would be considered modest indeed by comparison with those of the world's great millionaires.

Not even kings, before the age of machinery, dreamed of possessing such wealth as is owned by Mr. Rockefeller, Mr. Ford, and Mr. Morgan in America; or the Duke of Westminster in England; or the Stinnes heirs in Germany; or the Rothschilds in various European countries. And there is the rub. The age of machinery brought immense wealth, but it showed a tendency to pile up in the hands of a few men.

It still exhibits that tendency; but again it is useless and foolish to assume that that is the work of some malignant personal devil, and that if we might once find him and bind him everything would run smoothly thenceforward. Some rich men no doubt have gained their wealth by unjust and illegal means. Some have gained it without doing anything, good or bad. The Duke of Westminster, for instance, is a wealthy man in England, not because he stole money, but because his ancestors happened to hold certain land on which, in later years, extensions of the city of London were built. In like manner the Astors are extremely rich because the original Astor, a century ago, bought a farm which has since become the heart of New York City. But the bulk of the great fortunes were not amassed by any such means. In general they represent a genuine contribution to the building of civilization by some extremely able executive.

Take, for example, the three great American fortunes just mentioned. They represent three phases of industry in which executive ability has been able to win tremendous rewards—commerce, manufacturing and banking. Mr. Rockefeller made his millions as an oil merchant; his refining plants might be considered manufacturing concerns, but the manufacturing processes are incidental —the great success of the Standard Oil Company was in selling its product in every part of the world. Mr. Ford, on the other hand, is conspicuously a manufacturer; he has selling agencies, to be sure, that make him something of a merchant, also; but his great success has been in making his factories wonderfully efficient. Mr. Morgan is primarily a banker, although he owns factories and stores; but these are incidental to his business of financing other men. Neither Mr. Rockefeller nor Mr. Ford inherited any money; and while Mr. Morgan did, he has proved himself almost, if not quite, as able a man as his grandfather, who founded the banking house.

What quality, then, in the work of these men has made the world give them such enormous rewards? Primarily, no doubt, its rarity. If there were 500 Henry Fords in America probably none of them would be the richest man in the country; but as long as there is only one, his services are worth pretty much any price he chooses to ask.

A corporal can command seven privates in a battle; but nearly any intelligent man can make a pretty good corporal, so corporals are not highly valued. It takes more ability to handle 250 men, and captains rank correspondingly higher; but hardly one man in a million can handle 250,000 men, so an able general is worth any price to his country. To use a homelier figure, nearly everybody can take two balls, and by tossing them with one hand and catching them with the other, keep one constantly in the air; so nobody will pay to see a performance of that sort. But a man who can take a dozen balls and keep eleven of them constantly in the air can make a living on the vaudeville stage as a professional juggler.

In the Middle Ages it was the normal expectancy of the apprentice that in time he would become a master craftsman with a shop of his own, in which he would employ several journeymen and apprentices. Any man of average intelligence can do that, as any man of average intelligence can become a corporal in command of seven men. But when, on the introduction of machinery, the shop became a factory, employing hundreds, perhaps thousands, of men, it took a man of very extraordinary ability to run it. It was like commanding a regiment, or juggling half a dozen balls—it required training of a different sort, and ability of a different sort, from that possessed by the average man.

When stores consisted of one room in the front of the merchant's dwelling, in which he supplied the familiar wants of his neighbours, commerce was a simple matter. But when it came to a matter of persuading Esquimaux to abandon their bowls of blubber with floating wicks, Hindus to abandon their candles, and Hottentots their camp-fires, to replace them with kerosene lamps and lanterns, which involved seeing that the kerosene and the lamps were at hand, which involved organizing pipe lines, refineries, railroads, steamship lines, pack trains, caravans, dog-sledge routes and parties of native bearers, John D. Rockefeller was the one man in the world who proved himself equal to the job.

The success of the English as an industrial nation is due only in part to the skill and ingenuity of their engineers and inventors and to the industry and intelligence of their workmen. An enormous part of it lies in their ability to produce extremely capable executives. As modern industry spreads all over the world, so it is affected by everything that happens in the world. The price that a cotton manufacturer in Manchester, has to pay for his raw cotton may be noticeably raised or lowered by a few rainy days in Texas; the price that he will receive for the cloth that he makes may be equally affected by a revolution starting in Canton, China. A strike in the Rhode Island or the North Carolina cotton mills may enable him to sell his product at a better price and thereby add enormously to the profits of his company; a boycott on English goods in India may ruin him.

The sort of a man who can simply keep up with all the innumerable things that affect the business of a great modern industrial concern is not found on every street-corner. The sort of man who, in addition to keeping up with them, can judge their effects accurately and act according to his judgment, is almost as rare as a white blackbird. So it comes about that the few men who have it in them to make good executives are regarded by the commercial world as extremely valuable; and the owners of business concerns are willing to pay any price for their services. Furthermoreand in this is the origin of the great fortunes—a man of that sort can start a small concern of his own, and by his superior executive ability produce his goods cheaper and sell them to better advantage than less able men. Presently, then, his competitors are willing to turn their concerns over to his management for a share in the greater profits he will make, or are forced to do so by the pressure of his competition. Thus his field of opportunity inevitably broadens, and if he is big enough to work it he may end by dominating a whole industry.

How to prevent such men from eventually

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dominating the whole world is a problem that has been puzzling thinkers more and more since the rise of the modern industrial system. We do not like the idea of coming under complete control of the small body of executives; yet we cannot run the modern world without them.

CHAPTER IX

WHY THE BANKER IS IMPORTANT

THE early nineteenth century was convinced that if kings and kingly governments could be abolished the average man would be perfectly free to work out his destiny in his own way. Now, in the first quarter of the twentieth century, kings are almost as rare as stage-coaches. Yet somehow men are not perfectly free. True, the law no longer says that they shall work at such-and-such trades, during so many hours, for a specified wage. But what most people call circumstances and scientists call "economic pressure" accomplishes the same end. It is with great difficulty that the workman exercises even partial control over his own hours, wages, and working conditions. The doctrine of laissez-faire works admirably for the strong and shrewd-so well that they have endeavoured, with some success, to maintain it to this day. But the individual worker is strong only when he combines with his fellows; and shrewd only when he follows an able leader. Consequently, the struggle for the control of the modern industrial system has developed into free-for-all fight between exceptionally able a individuals, or groups of individuals, and organized workmen. It is to be noted, however, that it has been a free-for-all, not a pitched battle, with all the exceptionally able individuals on one side and

all the workmen on the other. Various elements among capitalists have been, and are still, contending for mastery, not of workmen alone, but also of all other capitalists.

We have just noted the rise toward complete economic dominance of one set of men, namely, commercial executives, of the type represented by Mr. Rockefeller and Mr. Ford. But their march toward mastery is disputed by another group, formidable by reason of its intelligence and still more formidable by reason of its powerful position in the workaday world. This group is made up of the bankers who, especially within the last generation, have threatened to bring even the Rockefellers and Fords under their control.

Banking is a form of labour older than the work of industrial or mercantile executives, but resembling it in that it calls for many of the same qualities, and also in that it is a late product of civilization. Banking is impossible until civilization has been raised to a comparatively high level, and modern finance (which is banking expanded and developed in all directions) is a product of the last century and a half.

The banker is simply a merchant whose stock in trade is not dry goods, nor groceries, nor drugs, nor clothing, but money. A financier might be described as a commercial executive who, instead of employing men to carry out his plans, employs money. Mr. Morgan, for example, bears the same relation to an ordinary banker that Mr. Ford does to the superintendent of one factory, or that Mr. Rockefeller does to a store-keeper, in say, Greensboro, North Carolina. At bottom, his business is banking; but as a financier he has extended it to cover innumerable other things.

The modern banking system started with the Goldsmiths' Guild. It originated there, instead of with the Tanners', or the Carpenters' and Coopers' Guild, simply because the goldsmiths worked with precious metals, and therefore had to take unusual precautions against thieves. They had installed in their shops the strongest vaults that could be made. Then other people, when they had on hand a sum of money that they did not expect to use immediately and which they disliked to keep in the house for fear of thieves or fire, fell into the habit of going to some friendly goldsmith and asking him to keep their money for them in his strong vault. Soon it came to pass that the goldsmith always had a pile of other people's money lying in his vault; for if Smith came to draw his out this morning, Jones was sure to come before night to put his in.

The thrifty goldsmiths found that they could calculate almost to a certainty the average amount that would be in their vaults on a given day; and they began to wonder why that money should lie there doing nothing when they could lend it to someone who would be willing to pay them something for the use of it—that is, pay interest on it. They tried the idea out and it worked. Money is money, and if Smith wished to draw his out, as long as he was given the amount he put in he didn't care in the least whether or not it happened to be the identical coins he brought to the goldsmith's shop; so when Smith came in with, say, five gold pieces worth a pound sterling each, the goldsmith gave him a receipt for five pounds and tossed the gold pieces in with other money; then when Smith wanted his money back and presented his receipt, he might be given five gold pieces worth a pound sterling each, or ten pieces worth ten shillings each, or forty silver pieces, worth two and a half shillings each. In any case he received five pounds; and that is all that he cared about. In the meantime, the goldsmith took part of the money that Smith and Jones had left with him and loaned it to Robinson, who paid him interest; for the goldsmith had a hundred Smiths and a hundred Joneses leaving money with him, and while five of the Smiths, and seven of the Joneses, might want their money to-day, he knew that the whole two hundred would not all call for their deposits at once.

That is the basis of the banking business to this day. Many conveniences have been introduced since then—for instance, no depositor has to go to the bank to-day to get his money; instead he pays his bills by writing a cheque, which is a signed order on the banker, directing him to pay a certain amount to the person named in the cheque; and this person, in turn, can pay his own bills with the same cheque without taking it to the bank, but simply by endorsing his name on the back of it, which cancels his claim to the money and transfers it to the next man; and so on—but in its essentials the banking system is the same system that the goldsmiths introduced.

It is clear that to do this sort of work successfully the banker must possess two basic qualities : first, he must be a man of unquestioned honesty, for if

there is any doubt about it people will keep their money at home, and he will have nothing to lend ; and, second, he must be a good judge of men, especially as regards their honesty and business ability, for if he lends his depositors' money to a thief or a fool the borrower will steal or lose it, and the banker will have to make the loss good to his depositors or go into bankruptcy. These two qualities, combined in one man, are rare enough to make a good banker an extremely valuable servant of the community; consequently, his services are highly rewarded. Again, his power to lend or to refuse to lend, or as we say, to control credit, gives him an enormous influence upon the industrial world. In order to secure the good will of the banker, men are usually willing to take him in as a partner in any enterprise which they are sure will make money if they can secure enough capital to run it. If the banker believes that the enterprise is sound, and that the man at the head of it is honest and capable, he will often go in as a " silent " or "sleeping" partner-that is to say, he will take no active part in running the business, but will leave that to the active partner; he will simply put up a share of the money and divide the profits with the active partner.

The extension of this practice, as we shall see in the next chapter, constitutes the bankers' bid for domination of the whole industrial field.

CHAPTER X

THE BANKER IS ONE KIND OF MERCHANT

THE banker was described, a few pages back, as a merchant of money. That is not exact, except as money is the basis of his stock in trade. The thing in which he deals principally neither he nor his customers can see, hear, taste, touch or smell. This extraordinary commodity is credit, which may be defined as the faith men have in each other.

It may be illustrated, however, much better than it may be defined. Let us go back to our original banker, the goldsmith. Let us assume that the depositor, Jones, has a large sum of money with the goldsmith, and one day he is suddenly informed that he must pay it out at 11 o'clock the next morning. Let us assume, furthermore, that the goldsmith has just made a heavy loan to Robinson, and has, at the moment, less money in the house than the amount of Jones' deposit. Then when Jones walks in and demands his money, what is the goldsmith to do? We will assume that he explains the matter frankly to Jones, but says that he has a large sum coming in early the next morning, and that before II o'clock he will have enough to pay Jones. The latter is satisfied that the goldsmith is both an honest and a shrewd business man ; he therefore does not doubt that his money will be ready for him by 11 o'clock, and goes away contented. That goldsmith has credit. If, when Jones comes the next morning, the

If, when Jones comes the next morning, the money is ready as promised, then the next time Jones has some extra money on hand, he will take it to the same goldsmith. Furthermore, he will advise his friends to do likewise. The goldsmith's credit is to that extent established.

But suppose that, for any reason, he fails to have the money ready. Jones will certainly be angry, and will he keep his grievance to himself? He will not. He will tell everybody he meets how he failed to get his money back from the goldsmith. All the other depositors will become uneasy about *their* deposits, and very likely a large number of them will rush to the goldsmith's shop to get theirs out. Of course the goldsmith will not be able to pay them all, and his reputation will be ruined. He will have lost his credit, and nobody thereafter will leave any money with him.

Take particular note of the fact that he didn't lose his credit simply because he happened not to have the money on hand when Jones first called for it. He explained that to the depositor, and Jones went away perfectly satisfied. What ruined him was his failure to do what he had promised to do the next day.

In other words, a man's credit does not depend altogether, or even principally, on the amount of money he has, but rather upon his reputation for doing what he says he will do. Of course, modern banks make a definite promise to their depositors to pay on demand; therefore when a properly drawn cheque is not paid, a modern bank is just where the goldsmith was when he failed to pay the next morning—its credit is definitely weakened, usually destroyed.

About a hundred years before the industrial revolution (in 1694, to be exact) a group of London goldsmiths and merchants got together and worked out a scheme for a regular bank that should have nothing to do with the jewelry business. They started by getting the government behind them. They loaned the government $\pounds 1,200,000$, not for a year, or ten years, or any definite period—they just loaned it for as long a time as the government wished to keep it and was willing to pay interest of about $\pounds 100,000$ a year on it. This interest the government guaranteed by setting aside a certain tax to pay it. Incidentally, the loan never has been paid, and the British government pays interest on it to this day.

Of course, a combination of the ablest bankers in London backed by the government had enormous credit. Soon the organization, called the Bank of England, began to issue its customers, instead of gold or silver money, its promises to pay, printed on small pieces of paper. These banknotes were much easier to carry than coins. They could be sent through the mails, and in every way were more convenient than specie. As long as everybody believed that they would actually be paid if the holder took them to the bank and demanded silver or gold they were not only as good as silver or gold but people much preferred to have them. That began more than two hundred years ago, but up to this time nobody has found the Bank of England unable to pay; so to-day most English money

consists of banknotes. The total value of the banknotes always exceeds the amount of cash on hand, but it bears a certain definite relation to the amount of cash on hand, and everybody knows that they will not all be presented at once, so no one worries.

In America they have developed a different system, but on the same basis of men's faith in the government. They have not one bank, but twelve, scattered throughout the country. These banks work on the assumption that money is only a token, that the thing of value is not the money, but what it will buy; and they issue paper money based finally on the value of goods.

They go about it in this way : suppose that a cotton buyer in the south has purchased one hundred bales of cotton, worth \$10,000, and has only \$5,000 with which to pay the farmer who raised it. The cotton buyer intends to sell the cotton at a profit to the cotton mills, but that will take some time, and in the meantime the farmer wants his money. The cotton buyer then goes to a bank which is a member of the Federal Reserve System, and asks the bank to lend him \$5,000 on the cotton as security. The banker knows that it is perfectly safe, because, in the first place, the cotton buyer has a reputation for honesty, and in the second place the cotton is easily worth \$10,000. He therefore makes the loan. But his cash, like that of the goldsmith when Jones came in, may be getting low. If it is, he takes the cotton buyer's note and sends it to the nearest Federal Reserve Bank, with his own bank's indorsement stamped on the back of it. That indorsement means something

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like this: "This bank knows that this note is good, because it is secured by cotton worth more than the note; so if the fellow doesn't pay the note when it is due, this bank will." The Federal Reserve Bank thus has three assurances that that note will be paid, namely, the value of the cotton, the promise of the cotton-buyer, and the promise of the local bank. On that triple assurance, it issues to the local bank its own banknotes, which are as good everywhere as gold or silver coin. Then, when the cotton is finally sold to the mills, and the note is paid, the Federal Reserve Bank withdraws and cancels an equal amount of its notes.

That is what makes American currency elastic. By the use of credit it is made to swell and shrink at need. When currency is needed more than cotton, the value of the cotton, through the credit of the Federal Reserve Bank, is transformed into currency; and when cotton is needed more than currency, the currency is cancelled, and the value rests solely in the cotton again.

Of course, if people once got the idea that the government was tricking them, and that there was no cotton or anything else of value at the bottom of the transaction, this currency, called Federal Reserve notes, would be worthless. Nobody would give anything of value for these notes, and they would be just so many prettily engraved pieces of paper.

Note what happened to Confederate money when the war began to go against the Confederacy. In the beginning it was good money in the south, because people had confidence in the final ability of the Confederate States of America to pay; but when they found that that government never would be able to pay, the value fell out of the currency. The same thing happened fifty years later to German money. In 1913 German paper marks were accepted everywhere as being worth one shilling each; but ten years later the German government had issued so many of them that it was plain that they never could be paid in gold. Once it was clearly understood that the German government never could redeem its paper marks in gold, they became worthless as money.

CHAPTER XI

HOW THE WORK OF THE WORLD IS PERFORMED TO-DAY

IF one is to have anything approaching a clear understanding of the way in which the work of the world is accomplished to-day he must know in a general way the relative positions of the three great forces that combine to get that work done, namely, the director, the financier and the worker. The sketch of the development of the banking system given in the preceding chapter is extremely crude and simple, whereas the system as it actually exists is extremely well-wrought and complex.

Study of that sketch, however, will make plain the two or three points that are necessary to understand what follows. In the first place, it is easily seen that into the banks the money and credit of the whole community pour constantly, as water pours into a reservoir; so that a well-managed bank soon accumulates immense financial resources. In the second place, the illustration of the cottonbuyer, who borrowed \$5,000, not for any sudden emergency or to meet some extraordinary need, but simply in the course of his usual business, outlines the principal function of what are known as commercial banks—they lend, not to people who are in dire straits, but to exceedingly prosperous business men who borrow regularly in order that they may do a larger volume of business than they could do if they traded with their own money exclusively. In the third place, it is indicated that business depends far less upon the use of actual money than upon paper promises to pay, sometimes banknotes, but more often "commercial paper," such as the note of the cotton buyer, which the local bank discounted with the Federal Reserve bank. In the fourth place, it is hinted that modern financial operations are complicated.

That last idea must be emphasized if one is to gain anything like an adequate conception, either of a skilful banker's value to the community, or of his power in it. It is estimated that for every dollar of money-silver, gold and paper-circulating in the United States on any given day, there are at least \$ 300 worth of commercial paper--notes, cheques, drafts, acceptances, bills of exchange, and many others-in circulation. To keep this great mass of credit moving, to understand it and regulate its flow and keep account of it requires ability and training of a very special type. High intelligence alone will not fit a man for the banking business. He must have a special aptitude for that sort of work, and in addition he must have studied it for a long time.

But, like the commercial executive, if he does succeed with his own bank he can bring others under his control. He can obtain control also of other institutions that, like banks, are great reservoirs of money and credit—insurance companies, trust companies, savings associations, and the like. By his power to lend or to refuse to lend he exercises an enormous influence upon the success of other

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business men ; frequently he finds it in his power to make a manufacturer's fortune or to ruin him, to expand a merchant's business enormously, or to choke it down almost to nothing.

Credit, indeed, is the life-blood of modern business; but like blood it is useful only as long as it circulates. To illustrate what that means, let us return to our cotton buyer, and assume that when he purchased his cotton he had \$10,000 but no more. He might have paid the farmer without going to the bank at all; but in that case he would have been able to buy no more cotton until he had sold the first consignment to the mills and had received his money. By borrowing \$5,000 from, the bank, however, he would be left with \$5,000 in hand, with which he could make another trade the next day, without waiting to receive payment from the mills.

In an enormously magnified form this is what goes on daily among dealers on the stock exchange, and other exchanges, in great cities. There, however, the customer often puts in only a small proportion of the purchase price of the stocks, or other commodities, that he buys. The remainder is loaned by banks on the supposition that the buyer will almost immediately resell and pay back the This encourages gambling (the purchase of loan. stocks that the purchaser does not want nor intend to keep, but which he thinks will rise in price, thereby enabling him to resell at a profit) but it also makes possible the transaction of an enormous amount of legitimate business which otherwise never could be done.

But the banker's control of money and credit

gives him a powerful grip upon the whole community. As banks and other financial institutions have grown enormously they have come to exercise the same power upon the nation. Especially within late years there has developed a tendency among the larger banks and groups of banks to buy outright control of various industries. The banker does not take active control of the property he buys. He leaves that to the commercial executive. It may be a railroad system, and the banker is no railroad man; it may be a group of mines, and he is not a miner; it may be a navigation company, and he is not a sailor. Being too wise to try to make himself over, he leaves the concerns he buys in the hands of the men who were funning them, and contents himself with ownership.

The trouble with this system is that the banker, knowing nothing whatever about the business he buys, is interested in nothing about it but the profits. Now if there is anything that has been absolutely proved by the history of modern industry it is the fact that a business that is run absolutely and exclusively for the immediate profit that may be made out of it is a business that is soon going to run into trouble. The man at the head of the business, being now no more than an employee of the banker, is in the position of a tenant farmer who has no interest in building up the land, but is concerned only about getting the largest possible crop this year, no matter if he wears out the soil in doing so. Such a man will drive both men and machinery harder than they ought to be driven, and harder than he would drive them if the business

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were his own, on the theory that if he makes a good profit out of this factory this year, next year the banker will transfer him to a larger one, where he will draw a larger salary. So, after a while, both men and machinery give way. The men grow rebellious and there are labour troubles, strikes and lock-outs. The machinery wears out, falls into disrepair, and there are breakdowns. In the end, everybody is made miserable, and everybody loses.

But while the evils of ownership of industry by financiers are clearly apparent, the prevention or cure of the trouble is not so easily seen. The world certainly cannot do without the financier, and if it lays too many handicaps upon him by means of laws regulating and restricting his activities, it runs the risk of destroying his usefulness. He is something like a doctor of sick businesses if we try to start out by saying what the doctor shall prescribe, what is the use of calling in a doctor.

There are pessimistic thinkers who assert that the only way that men can avoid becoming slaves of the money power that they have themselves created is by destroying it outright. But that would be to undo the work of many centuries, to take a step back toward the lower civilization out of which we have emerged. Men have never yet found it necessary to do that, and in times past they have faced worse tyrannies than the one that threatens in the undue development of the power of the great financiers.

At the same time, every man and woman who possesses the right to vote ought to know something about the problem in order to be able to vote intelligently; for measures dealing with it are constantly being presented to the voters for their decision.

CHAPTER XII

WHAT. THE LABOURER HAS DONE FOR HIS OWN PROTECTION

BUT in the meantime the man who works with his hands has not permitted himself to be forgotten. To his original patrimony, "the strength and dexterity of his hands," he has added the strength of organization, which has torn down Adam Smith's whole doctrine, little by little, and substituted for it a system of governmental control of industry that is as far from the policy of *laissezfaire* as was the Statute of Apprentices, although in the opposite direction. Early in the twentieth century he has accumulated a power that is regarded in some quarters as more formidable than that of either employer or financier.

His achievements, when one looks back upon them, are the more remarkable because he started under a handicap worse than that that lay upon either employer or financier in the shape of the law. At the beginning of the nineteenth century practically every bit of legislation dealing with labour was legislation directed against labour. To-day practically every bit of legislation dealing with labour is designed to protect its rights. The workman has wrested from his enemies' hands the blade whose point, in 1800, was at his throat, and to-day he wields it in his own defence.

In 1800 the labour code was comprised in the

Statute of Apprentices, which had existed, without material change, since the days of Queen Elizabeth. This, in turn, was essentially a reproduction of the Statutes of Labourers of 1349, which were laws passed while the Black Death was still raging in the north of England. These laws had the admitted purpose of preventing labourers from taking advantage of the fact that the pestilence had reduced their humbers by half to extort higher wages from their employers.

The Statute of Apprentices began by making labour compulsory. It then proceeded to deny the labourer the right to make the best bargain he could with his employer, but instead made it the duty of the justices of the peace of each locality to meet once each year and fix the rate to be paid in that, locality for each kind of industry. It required seven years' apprenticeship of all who sought to enter any trade. It made twelve hours a working day in summer, and during daylight a working day in winter. It made every contract last for the duration of a year, and required six months' notice before it could be ended by either side.

The object of all these regulations was frankly to protect the employer against extortionate demands of labour. The great fear of the government was that the working people might get out of hand, and no regulations designed to prevent that were considered too severe. The Statute of Apprentices was based on the old idea, come down from feudal times, that the labourer was in some sense a part of the land, that his labour, if not his body, was bought and sold with the estate on which he lived. As for rights, he had none that any of the higher

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classes felt bound to respect. Without a vote, and so without representation in Parliament, and forbidden by ferocious criminal laws to combine with fellow-labourers, he had no way to file a protest, no friendly crack or crevice at which he might begin to dig his way out of the virtual prison that inclosed him. The law was made for the higher classes as it was made by them. He alone was its victim, to whom the law meant always repression, ruthless and often cruel.

And now let a tribute be rendered to Adam Smith. If his doctrines in the end proved disastrous to the labouring class, in the beginning they had the effect of dynamiting his legalistic prison walls. The doctrine of the rights of man was shattering political bonds everywhere. Carried by Adam Smith from politics into economics it could have but one effect; that was to make the public opinion of England agree with the great judge, Lord Mansfield, when, in 1813, he referred to the Statute of Apprentices as "against the natural rights and contrary to the common law rights of the land." It was repealed the next year.

Even before that repeal, however, the tide had begun to turn. As early as 1802 one law was enacted, not against, but to protect, workers. This was the "Health and Morals Act to Regulate the Labour of Bound Children in Cotton Factories," and it is for ever to be remembered by workers, not only as the first law of the present great code of factory legislation, but also for the terrible price at which its success was purchased.

Reference has already been made to the labour of pauper children in cotton factories located in

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remote districts to be near water powers. Far removed from observation, forgotten by the world which had cast them off, chained to their machines and rapped on the knuckles by brutal foremen when they fell asleep, worked day and night ("their beds never grow cold," said people, for as one climbed out to go to work another got in) in twelve-hour shifts, half-starved and half-naked, these children suffered such torments as are sickening to remember. In the end, they sickened England, for news of their dreadful plight got about in spite of the remote situation of the mills, and decent people demanded that something be done, regardless of legal precedent and economic theories.

The prime minister at that time was what is now called an extremely "hard-boiled" individual, by the name of Sir Robert Peel. He owned a cotton factory himself, and employed a thousand of these very children. But the stories that drifted back from the hills were too much, even for old Sir Robert. Staunch Tory as he was, and violently opposed to all new-fangled notions, he had not the heart to make his money by grinding the life out of pauper children. So he won everlasting honour among later generations by going before Parliament and demanding action. The result was the act referred to above.

Judged by modern standards of factory legislation, it was not much of an act. It applied only to cotton mills. It merely provided that no child should be "bound out" to a cotton mill under the age of nine years, restricted the working hours to twelve a day, and provided that the walls of factories should be whitewashed and the rooms properly ventilated. WHAT LABOURER HAS DONE FOR HIS PROTECTION

Nevertheless, it upset the whole system of *laissez-faire*. It admitted the principle that the factory system brought into existence conditions that it was desirable that the government should regulate. It was a reversal of the prevailing legal practice in that it employed the power of the law, not to hold down the workman, but to protect him; admitting that his protection was in some cases, at least, necessary to the protection of the state.

This was the thin edge of a wedge that has since been driven deep. It marked the beginning of the end of the idea that any endeavour by society to regulate the conditions of labour in order to abolish plain and unmistakable evils is bound to be futile because it will run counter to "natural" laws. It marked the beginning of the progress in social science which was to arrive within a century at the conclusion that Ricardo's law of wages and Malthus' theory that poverty is an inescapable evil are both founded on false premises ; that the worker need not expect to win only a bare subsistence by his labour, and that want and misery are not due to immutable natural laws, but to the failure of society. to make the best use of the means at its disposal.

CHAPTER XIII

SOME REASONS WHY THE "UPPER CLASSES " FEARED THE LABOURER

THE whole attitude of the world as regards workers and the law has changed so completely within the past century that it is hard for us to realize the fury with which the working man had to fight to bring about that change. Although he did, indeed, have one law written on the statute-books for his benefit as early as 1802, the English industrial worker was not yet free from a mass of ancient legislation designed to keep workmen in their places and to prevent them from troubling the peace of the upper classes with their demands.

As far back as the sixteenth century parliament had begun to pass laws prohibiting "combination" by workmen to enforce their demands upon unwilling employers; and for three hundred years these "Combination Acts" continued to be written upon the statute books. The last one was enacted into law in 1800 in response to petitions of manufacturers who declared that combinations were being formed among their workmen. There is no record that it ever occurred to parliament to inquire what the workmen thought about it. It was assumed as a matter of course that the manufacturers must be protected, and the bill accordingly passed. Why the "Upper Classes" Feared the Labourer

 \checkmark Judged by modern standards, it was a terrific law. It made illegal any combination among workmen for obtaining an advance in wages for themselves or other workmen, or for decreasing the number of hours of labour, or for endeavouring to prevent any employer from engaging any one whom he might choose, or for persuading any other workmen not to work, or for refusing to work with any other men. Attending a meeting for such a purpose, or subscribing funds, or inviting others to attend meetings or subscribe funds were likewise made illegal. Any justice of the peace might sentence to three months' imprisonment a workman convicted of violating the statute. To give some semblance of fairness to the law, it was also made illegal for employers to combine to reduce wages or lengthen the hours of labour, although violation of the law on their part was not punishable by imprisonment, but only by a fine of twenty pounds.

It is significant of the spirit of the times that no employer ever was even prosecuted, much less convicted, under the law, whereas time and again workmen were sent to prison. But the severity of the law and the ferocity with which it was applied were not altogether due to the greed and wickedness The upper classes were of the manufacturers. quite honestly afraid. Napoleon was not finally beaten until 1815; and until that time and for many years after people had in their minds a terrible memory of what had started Napoleon on his devastating career-the French Revolution. In every combination of workmen they saw danger of a revival of 1793, with riots and massacres in the streets, the establishment of a Reign of Terror and

a price on every nobleman's head. Therefore in England they were resolved to nip any such movement in the bud; which made parliament, the courts and the constables all extremely, rough on the workman.

It is interesting to note that a hundred years later the world went through another such season of fear. In 1917 Russia blew up like an over-heated boiler, and all the horrors of the French Revolution were repeated on a vastly greater scale. The French king at least had a trial, was convicted of treason and publicly executed, all in what might be termed an orderly and lawful fashion. The Russian Czar, on the contrary, was shot to death in a cellar along with his whole family, by a detachment of guards acting on nobody knows whose orders. The affair, along with the terrible events that had preceded it and that followed it, horrified the whole world ; and since the Russian Revolution had been led by men who claimed to be friends of the workman, for the next few years any man anywhere who claimed to be a friend of the workman by that very act made people wonder if he were of the Russian kind. ~ Fear of the Bolshevists was responsible for many new statutes restricting the liberties of the people, especially liberty of speech, even in a country as far removed from Russia as the United States of America. Six years after the outbreak of the Russian revolution they were trying men in Michigan on a charge of " criminal syndicalism," a crime never dreamed of in that country until the rise of Russian Bolshevism terrified the world.

Just so in the nineteenth century workmen in England were paying, as late as 1824, for the

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excesses committed by the French workers in 1793. Englishmen were paying in the form of rigorous laws against workmen's combinations, in spite of the fact that everybody believed that Adam Smith's doctrine of *laissez-faire* was the last word in economics.

It was impossible, however, that such a plain violation of that doctrine as the Combination Acts should go unnoticed. As fear of starting a new French Revolution gradually subsided, men began to see more and more plainly the absurdity of denying to the workman the right to dispose of his labour as he saw fit, while jealously guarding the right of the employer to dispose of his goods as he saw fit. By 1824 the pressure of public opinion became too strong to be resisted, and the Combination Acts were repealed.

But if fear was an outworn argument, greed had no need of argument. Manufacturers who saw their profits threatened if the workers demanded increased wages stormed parliament. The workers had no votes and no political influence. The manufacturers had some votes and enormous influence. So in 1825 the repeal was itself repealed, and a much less liberal act took its place. It was not as bad as the Combination Acts, however, for it did permit workmen to organize to settle disputes as to wages and working conditions as long as the agreement applied only to those who were present at the meeting. Under such cramped and limited legal sanction the development of modern trade unions began.

Not for seven years still, however, was the workman's weight to begin to count politically in England, and then he was introduced to power by the action of his employers. The year 1832 is regarded by most historians as an immensely important date in English history, because it marked the beginning of the end of the old aristocracy in the passage of what is known in history as the Reform Bill. It was really a bill to give the manufacturers a chance to have some say in governmental affairs; but in the end it worked the transference of political power from the upper classes to the masses of the English people.

Up to 1832 England had been ruled by the nobility and the land-owning gentry. Certain towns had been allowed members in the House of Commons, but the districts had been laid out generations before the industrial revolution, and with the rise of great manufacturing centres many of these towns had dwindled in importance until they had become tiny villages, and some had actually disappeared altogether. Nevertheless, they still had the right to elect members of parliament, whereas the great manufacturing cities that had sprung up since the introduction of machinery had none. Naturally, the leading citizens of these cities, the manufacturers, did not like that ; so in 1830, when the old king died and a new parliament was elected, they began a tremendous fight to have the members of parliament better distributed.

The political battle lasted for two solid years, and became so hot that it at times threatened to break out into civil war; but in the end the manufacturers won. Seats in parliament were allocated to their cities, and the right to vote was largely extended. That extension, once begun, was never WHY THE "UPPER CLASSES" FEARED THE LABOURER

permanently halted until the franchise was granted to every man over twenty-one years old and every woman over thirty, who is neither feeble-minded nor a criminal.

CHAPTER XIV

IGNORANCE AND MISUNDERSTANDING ALWAYS CAUSE SUFFERING

HE books that have been written to record the industrial history of England in the 93 years following 1832 would fill a fairly large library; and England was only one country in a whole world that was being transformed. It would be foolish, then, to attempt in one volume to do more than touch the high points in that history. The fury of the workman's struggle for a better sort of life for himself and his children; the bitterness with which his efforts were opposed; the mistakes that he made, and that his employers made; the defeats and half-successes; the misunderstandings and misconceptions; the "hope deferred, that maketh the heart sick "; the reader must imagine for himself.

One point, though, is exceedingly well worth emphasizing, because it has applied to every era since man began his long march up from barbarism. It is this : no really first-class battle has ever been fought between insincere men. Never in the history of the world have men defended long and desperately a thing in which they did not believe; and they will not believe in anything that there are not some pretty good arguments to support.

Within ten years after the passage of the Reform Bill in England the condition of the working classes became so desperate that that period has been known to this day as " the hungry forties." Looking back upon that time we can hardly understand how people stood it, and still less why they stood it. Hours in the factories were extremely long, and conditions of labour abominable. In the coal mines children began to work at six and eight years of age. A common form of labour for women and girls was to crawl on hands and knees along passageways twenty-eight to thirty inches high, pulling a car containing three or four hundred pounds of coal by means of a chain attached to a leather belt around the worker's waist. Little girls of six or eight years of age climbed all day up and down steep ladders, carrying strapped to their backs big baskets of coal. On the surface, workers were paid Women working in the fields starvation wages. in the country got from $7\frac{1}{2}$ d. to 10d. a day. In the factories they might draw 10s. a week. Farm labourers received from 10s. to 12s. 6d. a week ; unskilled town labourers from 15s. to 19s.-not a day, remember, but a week--skilled workers, such as carpenters and masons, received 22s.; and a well-paid factory hand got sometimes as much as 25s.

More than that, many of the necessities of life were almost as dear as they are to-day—some of them dearer. Sugar and tea, for example, sold for prices that they have not touched since, except during the worst years of the war 1914-1918, and bread sold for more in 1840 than it did in 1910. The common people, even when they were regularly at work, rarely tasted meat; and even the bread, potatoes and turnips on which they lived were usually of the poorest quality and insufficient in amount.

The great manufacturing towns grew up so rapidly that there was not time to provide proper housing for all the thousands of workers who poured into the factories, even if there had been a disposition to do so. Consequently, living conditions among the common people at home were fearful. Overcrowding, lack of ventilation and lack of drainage were not the exception, but the rule; and in great towns such as Birmingham, Manchester and Liverpool thousands of families lived in undrained and unventilated cellars.

But, one may well inquire, why did they not die out, of starvation. or of pestilence, or both? Undoubtedly, they would but for a widespread system of charity. The English poor laws for a long time provided that where a man received a wage plainly too small to keep him alive, the difference should be made up to him by the government, out of taxes. That failed to work, because, on the one hand, it tempted employers to keep wages down and let the government pay the difference; and on the other, when a man knew that he would be supported whether he worked or not, he was tempted to loaf. So the law was changed to make the government support only those who could be proved to be absolute paupers. People were not allowed actually to starve to death in England; but it came to be quite the usual thing for a worker who lived to be too old to do a heavy day's work to end his days in the workhouse. He could not possibly save enough to take care of him in his age; and he could not burden his

children. So most English workers looked forward to dying in the workhouse as a normal end.

Now when a man works hard all his life and gets nothing out of it but a bare living, and a miserable one at that, so that when he is too old to work he has to be taken care of by the government; when in exchange for his labour he receives barely enough food to keep him alive, and barely enough clothes to keep him from freezing; when he lives in a wretched hovel, and has never a penny to spend for luxuries or amusements; when he can never educate his children, but must see them doomed to live the same sort of life; you can call that man a freeman, a citizen, or what you please, but the practical difference between him and a slave is hardly worth mentioning.

To this dreadful pass had the doctrine of *laissez*faire permitted the bulk of the English working people to sink. Adam Smith believed that he was enunciating a new gospel of liberty; and had the domestic system of industry endured it might have been that. But applied to the factory system, it proved to be just the reverse; it fettered people, instead of freeing them, and made the worker perpetually the under dog.

Yet it took a terribly long time for the nation as a whole to see that. Indeed, the world has not yet entirely made up its mind about it. In the United States, to this day, economists and statesmen occasionally refer to it as if its soundness had never been questioned; and Adam Smith's arguments are almost invariably brought forth against any legislation by which the government proposes to extend its control over industry. The trouble is that people find it extremely hard to realize that Adam Smith was writing about one sort of world, but not the sort that we live in to-day. Yet the thing proves itself. If Adam Smith's argument had applied to the new world when it was tried out in England in the hungry 'forties, it would have worked; instead of which it brought the English workers to the brink of starvation, and into a condition that amounted practically to slavery.

Still, Englishmen of the ruling class, even in the 'forties, did not want to do that. But they believed in *laissez-faire*. They could not believe that their beautiful theory was wrong, but assumed that there must be something wrong with the working classes, or if not that, they went to the terrible extreme of believing and asserting that the universe had been fashioned by God in such a way that it was natural and inevitable that the working people must suffer poverty, long hours and misery.

So it came about that when laws were proposed to regulate factories, to abolish child labour, to allow workmen to combine, or for any other interference by the government with the course of industrial affairs, such laws were bitterly opposed by men who were entirely honest, but who simply couldn't see what sort of world they were living in. An honest man who is thoroughly convinced of the righteousness of his cause is a terrible fighter, much more to be feared than any scoundrel. If, through lack of vision, he happens to line up on the wrong side, he fights just as well as if he were right. Therefore the tremendous bitterness and the length of the struggle to secure for the worker

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what we can easily see now are his just rights are to be explained, not by the rascality of the opposition, but by its honesty. Many of its members believed with all their hearts that any governmental interference with industry in behalf of the workers was not only futile, but positively wicked, because it was an attempt to defy the laws of Nature, which was to say, the laws of God.

CHAPTER XV

SOME GAINS LABOUR HAS MADE AND HOW

FROM the time of the abolition of the Combination Acts down to the present it has been the constant endeavour of the workers to secure complete control over their wages, hours and conditions of labour. They have never succeeded. In fact, if they succeeded completely, they would have control of industry. The executive would be eliminated, and so would the banker; and that, as we have seen, is far from being the case.

The effort of the workers to secure control has proceeded along two main lines, one economic, the other political. Both lines are followed in every country of the world that has the factory system highly developed; but, since our study has thusfar confined itself to the English-speaking countries, it is interesting to note that in Great Britain the political organization of workers has gone much further than in America, where labour still relies mainly on economic pressure.

Once the workers secured the right to combine, trades unions multiplied rapidly. Indeed, perhaps the greatest check on their growth, in America as well as in England, was their own mistakes. Large combinations of workmen were as new a thing in the industrial world as large combinations of capital. In the beginning, nobody knew exactly

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how to manage them, and for that reason many mistakes were made. Union leaders sometimes made demands that were unjust or impractical or both; and when they were not granted called strikes that often resulted in riot and bloodshed. Every time that happened a great many people, who hardly knew that a dispute was in progress until they suddenly woke up to find factories being dynamited and burned, and strikers fighting in the streets with the police, got a bad opinion of labour unions in general, and thenceforth opposed them strenuously. Thus every unnecessary strike, and every strike attended with violence, hurt the unions most.

In America the various unions are more or less loosely organized into the American Federation of Labour, a national body, which from time to time offers advice to the members as to how they should vote in political elections and takes especial care to indicate certain candidates to be supported or opposed, as they seem to the Federation to be friends or enemies of labour. But the Federation is in no sense a political party. It does not nominate candidates of its own, and makes no effort to win control of the government, as the Democratic and Republican parties do.

In England, on the other hand, while there has been a meeting every year since 1870 of the Trade Union Congress, a body in some respects similar to the American Federation, since 1893 there has been a regularly organized Labour party, which puts candidates into the field in opposition to the Liberal and Unionist candidates. It has steadily increased the number of its members in Parliament until, in normal times, it holds the balance of power between the other two.

Early in 1924 the Conservative ministry then in power, after suffering a defeat in Parliament at the hands of a combination of Liberal and Labour members, called a general election, in which the Labour Party won so many seats that it had more members than the Liberal Party. The King then called on the leader of the Labour Party, Mr. Ramsay Macdonald, to form a ministry, and Macdonald became the first Labour prime minister that England had ever had. His position, however, was insecure from the start, for he lacked a majority, and although he conducted the government with fair success, especially in the conduct of negotiations with France, he was defeated a few months later on the question of a proposed treaty with the Soviet Republic of Russia. Still, he held office long enough to demonstrate to the country that Labour was capable of conducting the government and in the election at which he was defeated the Liberal Party was so nearly extinguished that the Labour Party became the second political party in size in England.

Even in England, though, the participation of Labour in politics is designed, not to secure the pleasure and dignity of ruling, but to win an opportunity to correct what Labour regards as evils in industry. The control of government is not the end, but the means whereby English Labour hopes to secure greater control of industry.

So it has come to pass that the real struggle to-day is not one against some royal tyrant, nor against any government, but a three-cornered contest

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for the control of industry between the executives, the financiers and the workers. The government has been eliminated, except as a sort of umpire, called in by one or another of the real contestants to prevent the other two from running away with the world. The Sherman Anti-Trust law, for example, in America, was directed against combinations of capitalists and executives, which threatened to take over the business of the whole nation and make all do their bidding. The laws against boycotts, on the other hand, were passed to prevent combinations of workers from utterly ruining some executive with whom they had a dispute. The laws against usury were made to protect executives against bankers. And so on.

Yet, as a matter of fact, executive direction, finance and labour are all necessary to industry as a whole and to each other. The real problem, therefore, is not as to which shall control, but as to how to make them work together. This is the problem that has been too much, so far, for statesmen, labour leaders, and business men; and their failure to solve it is at the bottom of all the troubles that afflict the country on account of industrial disputes.

Indeed, the surprising thing is that they have succeeded as well as they have, when one stops to consider how little the average man knows of the vast extent of his own business. The worst of it is that industry is continually changing, and changing faster than we can keep up with it. This is what ruined Adam Smith's philosophy as a practical remedy for the ills it was intended to cure. He wrote his book on "The Wealth of Nations" in 1776. The doctrines in it spread with remarkable speed for such new doctrines; but even at that it was not until along in the eighteen-thirties that they were most completely applied in England; and by that time the whole system had changed so completely that Smith's system did exactly the reverse of what it was intended to do.

Consequently, the man, whether executive, labour leader, or financier, who is to exert a wholesome influence on industry to-day must maintain an open mind. He cannot afford to accept any system as always and inevitably true. He must be able to recognize new facts and to change bis course accordingly. He must, as we say, "keep abreast of the times."

Yet there is one principle that has held good among workers ever since the day, far back when savage men still dwelt in caves, when for the first time two of them joined efforts to move a stone that was too heavy for one to lift. That is the principle that the work of the world goes forward most easily and swiftly when, and only when, all hands co-operate earnestly and willingly. That held good when the two hairy ape-men moved the stone. It held good when all the people, nobleman, yeoman, and serf, joined to raise the cathedrals to the glory of God. It holds good to-day, when in some giant co-operation, with scores of factories and hundreds of thousands of workmen, all those workmen, all the managers, all the directors, and the bankers who finance them, combine to turn out some product of every-day use so cheaply that the poorest man can have it in his home.

The electric light bulb, for instance, that may

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shed its light over the Prime Minister's dining table, or over some poor woman's sewing, is such an article. It was not produced by the success of the executive, or of the banker, or of the artisan, in winning control; but by the success of each of them in co-operating with the other two.

CHAPTER XVI

WHAT ROBERT OWEN BELIEVED AND WHAT HE ACCOMPLISHED

BUT while the balance that actually exists between the three great forces that, taken together, constitute industry pleases nobody altogether there is at least as fierce a battle of ideas as to what should take its place. That there is room for improvement in the existing system is all too apparent; but what form that improvement should take is a matter so hotly disputed that to it—in one form or another—can be traced all of our industrial, most of our political, and many of our social and religious quarrels.

We have paid a good deal of attention to Adam Smith in this volume, not as a man so much as the representative of a school of thought—the school that borrowed from the Frenchman, Turgot, the fatal philosophy *laissez-faire* and applied it to English industrial life. It is time now to turn to the opposition and pay some attention to the man who represented the school of thought that was the direct opposite of Adam Smith's.

Robert Owen was born in Wales two years before the first appearance of "The Wealth of Nations." It was therefore during his youth and manhood, that its influence reached the greatest height. He had full opportunity to observe the practical workings of the doctrine of "hands off," WHAT ROBERT OWEN BELIEVED AND ACCOMPLISHED

and he was not pleased with it. In fact, he was so violently opposed to it that he spent his life fighting it.

He did not fight it solely with his pen, however, although he did some writing incidentally. He was not a philosopher, like Adam Smith, but a practical man. He belonged to the class of executives, whom we have just been describing; and he was one of the ablest that the factory system has ever produced. At nineteen he was manager of a cotton factory at Manchester with five hundred men under his control; and he ran his factory better than most men of three times his age. Among other innovations that he introduced, he spun the first seaisland cotton ever imported into England-that is, the cotton with extremely long fibres which is used in making thread of great strength and great fineness, such as sewing cotton and the threads woven into the finest sorts of cloth for aeroplane wings.

But his success as a manager was due in large measure to his success in handling his employees. He spent an enormous amount of time and energy working out schemes for the benefit of his employees; and presently discovered that the better his men were treated, the better they worked; while the better they worked, the more his factory prospered.

This singular young man on a visit to Scotland fell in love with the daughter of a Scottish cotton manufacturer named Dale, who owned a rather large establishment at a place called New Lanark, in Scotland. Owen, unsatisfied with what he could do in Manchester, persuaded his company to buy the New Lanark mills and to make him manager with practically a free rein. In New Lanark he found a state of affairs better than that which prevailed in many cotton factories, but still bad enough. Dale had erected his mills at New Lanark in order to avail himself of the water-power of the falls of the Clyde river. He could not persuade the sturdy, independent farmers of the neighbourhood to submit to the long hours and unwholesome conditions then prevailing in all cotton mills, so he had imported his workmen, most of them from the slums of Glasgow and Edinburgh, and including several hundred children from the poorhouses of the cities. Naturally, it was a wild collection drunken, dissolute, ignorant and miserably poor.

With these people Owen set to work. He tore down the squalid, noisome hovels in which they were living, and built clean, comfortable houses. He made the interior of his mills as wholesome as possible—well ventilated and clean. He took the children off the rougher jobs, cut down their hours to reasonable length, and made them go to school part of the time. He clamped down rigid restrictions on the sale of intoxicating beverages. He introduced every improvement that he could think of to brighten and lighten the lives of his workers.

The result was almost miraculous. Within a few years New Lanark became a different sort of town. The "wide open " community of 1800 was replaced by as clean, decent and orderly a town as there was in the British Isles. The people became selfrespecting, up-standing workmen. Drunkenness and vice became as rare as they had formerly been prevalent. Most remarkable of all was the change

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in the children; in place of the dirty, sickly, vicious semi-savages that England was accustomed to find in "bound" children, one discovered at New Lanark, clean, healthy, polite and obviously happy boys and girls, growing up into strong, decent, self-reliant men and women.

Moreover—and this was what flattened Owen's opponents—these people worked at least twice as well as the half-starved wretches that filled so many cotton factories, so that, in spite of the manager's great expenditures, the New Lanark mills were a great commercial success. It was another demonstration of the old truth that the work of a freeman in the long run is cheaper than that of a slave, because the freeman does much more work and does it much better.

Naturally, this astonishing experiment did not go unnoticed. On the contrary, it became the talk, not merely of Scotland or of Great Britain, but of Europe. Napoleon read Owen's pamphlets at Elba, and Nicholas, Czar of Russia, visited New Lanark and invited the manager to establish such a town in his empire.

Owen was entirely willing to extend his experiments, but not in Russia. He believed that there was work enough to do at home. His experiments at Manchester and New Lanark, and his observations elsewhere, had convinced him that man is the creature of his environment—that his character is not made by himself, but that it is thrust upon him by his surroundings. Therefore, he argued, the way to create a strong, industrious and lawabiding nation is to raise the children in the right surroundings. Furthermore, he had a keen appreciation of the fact that the success of the New Lanark mills was founded on the hearty and willing co-operation of everyone connected with them.

Therefore he proposed the founding of communities of from five hundred to three thousand people in which every person should co-operate with all the rest in all his affairs. The community should purchase land and machinery and hold it in common; each member should work at whatever task was best suited to his ability, and the profits should be divided equally. The scheme was worked out in elaborate detail, but the points mentioned were the main ones.

Not only did he propose such communities, but he actually founded them—in England, in Ireland, and a notable one under his own supervision in Indiana. But they all failed. Sometimes it was one cause, sometimes another. But they all failed. In one instance, after the community had prospered for several years, the manager gambled the funds away. In other cases, the scheme was hardly begun before internal quarrels broke it up. In the case of the one in the United States, New Harmony, in Indiana, where Owen himself took charge, he seems to have collected, along with a few honest and sincere persons, a crowd of freaks and fanatics to whom genuine co-operation was as impossible as breathing under water.

The trouble was that in planning his communities, Owen had failed to allow enough importance to executive direction, and had therefore failed to arrange for securing and retaining it. New Lanark prospered because the workmen co-operated with the management, it is true; but Owen's business

WHAT ROBERT OWEN BELIEVED AND ACCOMPLISHED

genius gave it superb management. That he apparently never took into consideration; his seems to have been one of the rare cases of a man's failure through too modest an estimation of his own worth.

In the meantime, he had managed to antagonize two powerful forces. One of these consisted of manufacturers of the greedier and less far-sighted type. He angered these because such experiments as that at New Lanark encouraged their workmen to demand better treatment, which seemed to such managers to threaten their profits. The other was the Church. Owen had early in life become a freethinker in religion, and shortly after the publication of his first scheme he went out of his way, in addressing a great meeting, to make an attack on the Christian faith as taught in orthodox churches. Thenceforth his name and all his doctrines were inseparably connected, in the minds of millions of people, with downright atheism. Therefore opposition to Owen and his teachings became with many. people a matter of religious principle, as well as of economic interest.

Nevertheless, he was not discouraged. He went on teaching his industrial theories, and won numbers of people to his way of thinking. From 1830 on "Co-operative Congresses" were held at which co-operative theories were discussed, and cooperative plans were laid. Soon a word came to be used to describe the people who attended these congresses and believed in the theories of Owen. They were termed "socialists."

The word, as we shall see, has come by this time to mean something quite different. Modern social-

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ism owes but little to Robert Owen directly; but indirectly it owes him its existence, for his was perhaps the most conspicuous figure in the movement that has turned men's minds almost completely away from the philosophy of Adam Smith, and on his experiments the later socialistic thinkers have based many of their theories.

CHAPTER XVII

A WORD OR TWO ABOUT SOCIALISM

SINCE the days of Robert Owen the theory of socialism has grown tremendously, has split into innumerable sects and schisms, some of which have overshadowed the original theory altogether, and practically all of which differ from it radically. Experiments have been tried in all sorts of ways; but none has been more impressive than those of Owen, unless one considers the Russian Revolution as an adaptation of socialistic theory.

But while the theory has been developed mightily, the most impressive practical applications of socialistic doctrine-excluding Russia from consideration for the moment-are perhaps to be found in the co-operative enterprises and industrial legislation of England and of pre-War Germany, neither of which ever became a socialistic state. Indeed. almost the sole remains of Owenite socialism to-day are the English co-operatives, that is, organizations through which workers purchase their supplies, or sell their products, all together, with a view to eliminating the merchants' profits in one or both transactions. Some of these have been, in the purchasing end especially, notably successful; but they have not been so uniformly successful as to encourage the spread of the idea over the whole world.

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To understand any current discussion of economic questions, however, it is necessary to know not only the rudiments of the existing economic organization but also something of the trend of ideas on the subject.

The existing economic structure is the result of an almost infinite number of compromises; and compromises invariably displease extremists on both sides of the question. Therefore it is natural to assume that there will be those who condemn the existing structure as irremediably bad—some because it has gone too far in one direction, some because they would have it go just the other way. Such factions are to be found in the modern socialists and the extreme individualists.

It is interesting to note that the two men whose teachings have influenced these two factions most profoundly came from the same country—Germany. Without doubt, the distractions of that unhappy country in the first quarter of the twentieth century were in large measure due to the fact that she could not follow at once the ideal of Heinrich Karl Marx and the diametrically opposite ideal of Friedrich Wilhelm Nietzsche. Yet each had so prodigious a brain that he imposed his ideas upon his time to some extent; German workmen followed Marx; German aristocrats followed Nietzsche; and between two stools the nation fell in 1914, for a foreign war seemed to be the only escape from an internal explosion, and the foreign war proved ruinous.

By an ingenious theory of values Marx proved, to his own satisfaction at least, that the manual worker is systematically robbed by the capitalist, and must continue to be robbed as long as the capitalistic system endures. His cure was the transfer of all the instruments of production to the control of the workmen who operate them. So far he was no great distance from Robert Owen. But his method of transfer was by political revolution, the overthrow of the existing system by the power of numbers and the substitution of a socialistic organization for it. Just what Marx did mean must remain in doubt, for he died when his great book, "Capital" was one-fourth finished; but vast numbers of his disciples have understood his teaching to mean revolutionary violence.

Nietzsche. on the other hand, was so profoundly impressed by the inability of masses of men to do anything, or get anywhere, except under the direction of capable leaders that he stressed the necessity of developing leadership above all else. He insisted that human progress depends, not upon the gradual elevation of the herd, but upon the development of great leaders, capable of thinking out improvements and of compelling the herd to adopt them. This is the doctrine of the Superman, about which so much noise was made during the great war. Much that Nietzsche said has been misunderstood, and much more misinterpreted; so that large numbers of his readers have believed that he glorified the rapacity and greed of the capitalist class that Marx would have destroyed.

The chances are that each of these great thinkers would be dumbfounded if he might come back to earth and hear the interpretations that have been put on his doctrines; but we are not concerned here with what Marx and Nietzsche meant; we are concerned only with the effect that each produced. If a friend says to you over the telephone, "I will be over at nine," and you understand him to say, "I will be over at five," you will prepare to receive him at five. It may not be his fault. It may not be your fault. Over a telephone wire "nine" and "five" sound much alike, so the fault may lie entirely with the means of communication. Nevertheless, you will prepare to receive him at five. Thus it sometimes happens that the thought in the back of a philosopher's mind is not always the thought that he conveys to his hearers when he speaks to them. When it comes to conveying delicate shades of meaning, words are as tricky as a telephone wire. If you don't believe it, try to describe exactly a cloud in the sky at sunset, or the colours in sea-water.

But if we are in doubt as to what Marx and Nietzsche intended to do, we can see plainly enough what they did do. Each impressed the world with the necessity, even the desirability, of conflict. Each led his followers to believe that progress lay in the attainment of power by a particular class. Each, in short, sowed the seeds of strife in the world of work.

That strife has continued to the present—no great wonder, seeing that so many conditions favour it. Both Marx and Nietzsche were to a certain extent right. It is unfortunately true that the manual worker does not always receive the full value of his work, and not infrequently is systematically robbed. It is equally true that without competent leadership he would never get anywhere. It is perfectly true that the best way for the manual worker to protect his rights is by co-operation with his fellows. It is also true that the future of civilization largely depends on its ability to develop men who are capable of directing its affairs.

Nevertheless, the great mass of mankind has steadfastly refused to follow either philosopher, but has incessantly sought to find a middle ground between them. No thoughtful man will assert that it has been altogether successful-there is too much want, misery and injustice in the world for that. Nevertheless, neither is it possible to maintain that the search has been a total failure. After all, we have come a long way from the cavemen, a long way from the slaves of Egypt, and the serfs of feudalism. There is far too much suffering, hatred, and strife in the world for us to claim that our system is anywhere near perfect, but when all is said and done, it works. The earth has been brought under cultivation by it, great cities have risen, marvellous machines have been constructed and are operated by it, enormous wealth is created by it daily.

CHAPTER XVIII

CONCLUSION

THE system works, and that is the answer to all those who would destroy it outright and substitute something new and untried in its place. It is capable of improvement, but improving it is a different thing from tearing it down altogether and building something else.

Within the last fifty years, however, there has been another sort of objection raised. Men have protested, not against the weakness of our present industrial organization, but against its strength. They have declared, not that the system fails to work, but that it works too well. They point out that the modern workman has, in effect, little more power to change his individual status than had the slaves of centuries ago. They point out, too, that the factory worker cannot have that pride in his craft that belonged to the journeyman. The man who made the hinges on the doors of the cathedral of Notre Dame at Paris, for instance, took the rough iron and turned out the finished hinge. Probably he designed it. At any rate he hammered out all the parts and fitted them together. When the thing was done it was his work, and he enjoyed making it beautiful because, for one thing, beautiful work reflected credit on him as a workman. But the modern process of making hinges is divided among several men, who do no more than feed the material

into machines. All the difficult and beautiful work is done by the machine, and when it is finished it is the work of the machine, not that of the men. How can the workmen take pride in it?

They cannot. The joy of craftsmanship has been put beyond the reach of the average factory worker. It is the price he pays for release from long hours of drudgery and for the material comforts and luxuries that the mechanical age permits him to enjoy. Yet when you take away a man's joy in his work you deprive him of the principal thing that distinguishes the freeman from the slave. So pessimists argue that mechanical civilization has done no more than substitute one form of slavery for another.

It is not difficult to cite facts in support of that theory. In certain industries long hours of drudgery still persist, and the workers enjoy few material comforts, that is, by comparison with more favoured workers elsewhere. The profits of industry are still unequally distributed. Certain men possess huge fortunes which they have not earned, and certain others have to struggle desperately for a bare living. In trades which employ automatic machinery exclusively, there is reason to believe that the work is extraordinarily destructive of the workers' nerve force.

But to cite such facts is merely to prove that civilization is still imperfect, which is admitted. Before accepting them as proof that it is on the whole a failure, it is necessary to consider certain other facts. One is the fact that no way has ever been discovered to eliminate drudgery completely. The hinge-maker of Notre Dame had long hours of monotonous hammering, as well as moments of delight when he achieved a difficult success. The artist is also a drudge. Benvenuto Cellini was a great artist, but no one can read his account of how he made the mould in which he was to cast the bronze statue of Perseus which has preserved his fame without realizing that there was some of the dullest and most heart-breaking labour ever performed by man. The artist and the master-craftsman, the free workers, willingly endure that drudgery, however, because it is compensated by the delight of achievement.

Therefore to point out that the modern machine worker undergoes drudgery is not to prove him a slave unless it is also proved that he is deprived of all chance of achievement. On the face of the facts that is hard to do. The modern worker's hours have been reduced from twelve or fifteen a day to nearer eight. He has therefore more leisure than ever before. What he does with his leisure depends upon himself, but he has opportunity to achieve much. He is able to read and write-a thing undreamed of a few generations ago. In America, at least, he is usually able to employ his leisure to read to good advantage, for nearly everywhere there are free public libraries where the best of the world's literature is to be had for the asking. The conspicuous difference between the modern factory worker and the craftsman of two or three generations ago is that the modern worker must seek outside his daily labour the chance for achieving something that shall satisfy his instinct to do fine and beautiful work. He is not altogether deprived of the opportunity. It is no longer thrust upon him in his daily

toil, but it is within reach of such workers as choose to seek it.

But freedom cannot be thrust upon any man. In an earlier chapter note was made of the fact that Plato, the Greek philosopher, when he wrote his book describing the ideal state, included in it a slave class. Perhaps Plato was wiser than we give him credit for being. It is possible that under conditions which we should call ideal, there would still be men who were virtually slaves, simply because the desire for freedom was not in them sufficiently strong to make them strive for freedom. It is certain that in the modern world such men exist in large numbers.

The best, therefore, that can be hoped for is so to organize society that those who sincerely and passionately wish to free themselves may have a chance to do so. Even that has not as yet been accomplished. The world still lacks complete equality of opportunity, is indeed very far from it.

Nevertheless, to lay the blame for that on modern civilization is to betray ignorance of the sources of modern civilization and of the direction in which it moves. Here and there an opportunity may have been lost. Here and there may be found a slip backward. This trade, or that one, may be said, with reason, to be a worse trade now than it was ten, or fifty, or a hundred years ago. But to assert that workers as a whole are worse off now, or have less chance to better themselves, than they were in the past or than they had in the past is to argue against the plain facts.

As far back as written history goes, men were talking about the good old days, the Golden' Age that is gone for ever. Probably before they learned to write, they were talking the same way. Perhaps in the towns of mud in the hot river valleys old men sat sunning themselves against the rough stockade that protected the place and talked of the nomadic life back in the hills as the only life fit for a man to live. No doubt they predicted that no good would come of this huddling together in the valleys and scratching the ground to raise grain. No doubt they foresaw the ruin of the world in the building of the first town and sincerely believed that the best days of the race were gone never to return.

But with the records that historians have placed before us, we can now pick out any point in the long rise of man from savagery and see that, contrary to the belief of men of that time, better days were ahead than any that were in the past. With all the imperfections that exist, the worker who would go back to some earlier period in the world's history simply is not acquainted with that history.

In order to avoid the error of those extremists who are sure that the world is rapidly going to ruin it is not necessary to fall into the error of extremists on the other side, who are sure that this is the best of all possible worlds, and that any change is necessarily a change for the worse. One need only assume that what has been true throughout all history is true now, namely, that men will continue to learn how to work better and to work more happily, that changes will come and that they should be welcome because they will be, on the whole, changes for the better.

On the other hand, it is equally important to remember another conspicuous fact, namely, that no system has worked well, or has endured long, that did not or could not make the best of what it had. A civilization, after all, is not a machine. Its strength is the strength of the people who enjoy it. Good laws and wise rulers can do much for a nation, but not everything. In the end, its progress or decay depends upon the spirit of the people who compose it. It all goes back to the individual. The average workman to-day occupies a position in many respects superior to that of any other workman in the history of the world; but what he gets out of life depends finally much less upon the high civilization of his country than upon himself. He can live in the midst of that civilization and still be little better than a slave. If he seizes his opportunities and becomes a freeman, it is because the spirit of a freeman is in him.

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