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The Foundations of National Industrial Efficiency

BY

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TO MY MOTHER

PREFACE

This book has to do chiefly with the foundations on which a scientific study of industrial efficiency must rest. How little had been done toward the laying of such foundations I did not realize until I had taken some tentative steps in a study of the efficiency of the great industrial organizations which have given rise to the trust problem. It then appeared that while the term "efficiency" was much used in connection with business and with economics it had no clear, generally accepted meaning. Sometimes it was used in substantially the sense in which I have used it here. Often it was applied much more broadly to the ability to do work well or in large quantities. Such ability is really a complex thing. It is dependent on many conditions, only one of which, as I look at it, may properly be regarded as efficiency. There were a number of other senses in which the term was used, most of which were rather vague though some were fairly definite.

It does not, of course, follow from the fact that there is no general agreement as to what efficiency is that no scientific studies of the subject have been made. As a matter of fact, some excellent work has been done as regards particular phases of it, especially labor and the conservation of natural resources; and some writers who did not profess to deal with efficiency at all have

made substantial contributions to our knowledge of the subject. As regards the efficiency of the different forms of industrial organization very little has been done. It is true that many of those who advocate a public policy that would permit the formation and maintenance of great industrial combinations frequently argue that greater efficiency can be secured by them than by the lower forms of organization. Those who advocate the suppression of combinations sometimes deny their superior efficiency and sometimes argue that even if such efficiency were proved it would be more than offset by evils which the great combinations would bring with them. Such studies of the subject as have been made, however, deal, in nearly all cases, with prices, money costs, profits, or some combination of these. As I have tried to show in this book, proof in regard to such matters is far from conclusive as regards efficiency or inefficiency in the sense that is more important in connection with public policy.

It required but little analysis to show that even if efficiency were satisfactorily defined a large amount of preliminary work must be done before much progress could be made in such a study as I had under contemplation. The efficiency of an industrial organization, whether large or small, is in a great measure dependent on that of its various members and on the relations which it maintains among them. A satisfactory study of the efficiency of the organization as a whole therefore implies some knowledge of the conditions bearing on the efficiency of its members. These conditions are numerous and complex. The more I thought about

it the clearer it became that the problem was an exceedingly large and difficult one.

Under the circumstances it seemed best at least to postpone any specialized study of the efficiency of the great industrial organizations, and to analyze with some care the nature of industrial efficiency, its significance, and some of the most important conditions on which it depends. In so far as I have been successful the results should serve as starting points for studies of many different aspects of the general subject. More than to make some contribution to the laying of the necessary foundations I have not attempted. As a consequence there are many sections in the following chapters each of which might properly be expanded into a book; and there are phases of the subject that I have not dealt with at all on which much might be written. As regards some of these good work has already been done; but, considered as a whole, the subject of national industrial efficiency is one of vast importance which has received comparatively little attention.

Some acknowledgment is due to Professor Thomas Nixon Carver in connection with the emphasis that I have laid on the evolutionary significance of efficiency. It will also be noticed that I have considered efficiency almost exclusively from a national point of view and that Professor Carver is one of the relatively few American economists who have frankly taken this point of view in dealing with economic theory. I did not fully realize how closely I was in agreement with him in this respect until I received a letter from him written in answer to one of mine expressing apprecia-

tion of his "Principles of National Economy," in which he gave, in substantially the same terms as those which I had already used in my manuscript, the reasons which justify this point of view.

VANDERVEER CUSTIS.

September, 1923.

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The Foundations of National Industrial Efficiency

THE FOUNDATIONS OF NATIONAL INDUSTRIAL EFFICIENCY

CHAPTER I

THE MEANING OF INDUSTRIAL EFFICIENCY

§ 1. INDUSTRIAL efficiency is one of the chief means by which the material welfare of mankind can be increased. Unfortunately the term has, for many persons, a hard, mechanical connotation. Such persons are inclined to look upon those who are especially concerned with the development of industrial efficiency as at least under the influence of the idea that the production of wealth is one of the chief ends for which men and women exist, and that human happiness is, at most, a matter of minor importance.

It must be admitted that in much that has been written on the subject this idea is strongly suggested. In some cases efficiency has been looked upon as a means by which particular industrial establishments can be made more profitable. In others, especially in connection with German industry before the armistice, it has been looked upon as a means by which the military power of the state might be increased. In both the emphasis is laid upon the importance of a large

industrial output, and comparatively little attention is given to the hardships involved for the great mass of workers. Upon the whole it is not surprising that those who were not especially interested in the profits of the owners of industrial establishments or in the state as a great military power should feel that industrial efficiency is not a matter of great concern to them.

A feeling of this sort, however, is unwarranted. Industrial efficiency is, indeed, only a means to an end; but that end may be very closely related to the welfare of the people. Unquestionably industrial efficiency may result in increased profits, and it is not unnatural that those responsible for the management of industrial establishments should look at it from that point of view. Unquestionably industrial efficiency may be a means of increasing the military power of the state. Had it not been for the efficiency of German industry the Central Powers, surrounded by enemies and cut off from the sea, could never have prolonged the war for more than four years, as they did. Doubtless a condition of preparedness and the organization of the nation on a military basis do much to explain Germany's strength; but of this the organization of industry to produce the things needed was a part. It is true also that Germany had at her disposal the rich mineral fields of the invaded territory; but the vital point is that she was able to make use of them. Russia, which had vast resources on her own soil and an enormous population from which to draw workers, met with economic as well as with military failure. Indeed, it may be questioned whether the latter was not primarily a result of the former.

The contribution of industrial efficiency to military strength consists mainly in this: it furnishes the nation with large amounts of wealth of the sort needed at the same time making relatively small demands on the man power required for military purposes. It can contribute in a similar way to any other purpose the accomplishment of which requires large amounts of wealth and the direct use of labor or natural resources. It can, for example, contribute to the struggle against poverty, disease, and excessive toil, quite as truly as to the struggle of one nation against another. The fruits of efficiency may be left in the hands of individuals, giving them increased wealth and increased leisure. They do not necessarily accrue only, or even chiefly, to the owners of industrial establishments, but to the great mass of the people as well. In fact the latter are practically certain to benefit largely if industry is truly efficient from a national point of view.

§ 2. Before giving much attention to the significance of industrial efficiency or to the ways in which it may be secured, it will be well to consider a little more carefully just what it is. Broadly speaking, efficiency may be said to be the ratio of accomplishment to energy expanded. The highest efficiency, therefore, implies the attainment of the greatest possible results with the means used or, which amounts to the same thing, the attainment of given ends with a minimum of loss or waste. The purpose of industrial activity is the acquisition of wealth; the methods are those of production; and the means are to be found in the people themselves and in their natural resources. It follows that industrial efficiency implies

the acquisition of wealth through production with a minimum expenditure of the energies of the people and of the natural resources. It involves making the most of the means of production. Putting it more technically, industrial efficiency is the ratio of wealth produced to the human energy and the natural resources utilized in the process.

The term "wealth" applies to material things and services that are injurious to the consumer as well as to those that are beneficial. Cocaine, for example, outside of a narrow field of legitimate use, is very harmful in its effects. The prohibition movement is largely due to the belief that the use of alcoholic liquors, at least where they are used to excess, greatly interferes with the realization of the industrial capacities of men. For such reasons as these a full discussion of industrial efficiency must include some consideration of consumption. Nevertheless little need here be said about the particular forms of wealth produced. The consumption of certain things may be waste, or worse; but that is a distinct part of the problem. Even harmful things, if they are produced at all, should ordinarily be produced with as little expenditure of human energy and natural resources as possible. Otherwise the losses of production must be added to those of consumption.

"Production" of course is not confined in its meaning to the technical work of farming, mining, manufacturing, and the like. It includes also such things as financing, storing, transporting, and marketing. In fact, any part of the process of bringing wealth, as distinguished from mere matter, into being, in which

man engages, may properly be regarded as production. Even activities that appear to be purely competitive may fall under this head, so far at least as they help to strengthen the power of individuals or groups to bring wealth into being, or put the process in the hands of those that can perform it best. Some difficulties as to the meaning of the term do, indeed, arise in connection with the point of view from which production is regarded, but this is a matter which will be more fully considered later.

"Human energy" as the term is here used, comprehends all the powers and capacities of men that are available for production. It must not be forgotten, however, that it is with men, rather than with energy in the general scientific sense, that economics is concerned; and the problem of industrial efficiency is in a very large part the problem of making the best possible use of the powers and capacities that men possess. For practical purposes human energy must be recognized as manifesting itself in a variety of forms, such as labor, waiting, and judgment. It must be remembered, moreover, especially in connection with the development of efficiency, that the powers and capacities that are important are not only those that have been realized, but those as well that are potential or latent.

"Natural resources" include all those forces and materials that man finds in his physical environment. So far as the natural forces are concerned, the practical problems of efficiency have to do almost entirely with their discovery and with the instrumentalities through which they are utilized. The forces them-

selves are, for present purposes, measureless in extent. Their discovery is a matter of human capacity, for the significant thing is knowledge in regard to them. The instrumentalities through which they are utilized are partly a matter of human capacity and partly a matter of materials, for the instrumentalities themselves are products of industry. With raw materials the case is entirely different. They are something apart from man. With some possible exceptions they are limited in quantity; and for this reason conservation in their use—not their non-use—is a matter of great importance.

Capital is, of course, essential to any large measure of production. It is, however, secondary in character, since it is itself a product of industry, and in the last analysis unnecessary expenditure of capital is unnecessary expenditure of the primary factors. Human energy, in whatever form manifested has been utilized to no good purpose and raw materials have ordinarily been made less available for any other use. As a factor in production capital is of great importance, and it is likely to be increasingly so with the development of industrial society. It is because of its character, not because of any lack of importance, that it is not specifically included in the definition.

The inclusion of both human energy and natural resources in the definition raises a question as to their relative significance, especially as the proportions in which they may be combined to secure a given result are, to some extent, under human control. From one point of view natural resources might be eliminated from the definition, for man may legitimately be re-

garded as fundamental and the significance of natural resources as derived from him. Undue exhaustion of resources in the present means simply an undue burden on human energies in the future. Nevertheless, the two things are so different in character that the inclusion of both in the definition, at least for present purposes, seems warranted. The proportions in which they should be combined depends, in a large measure, on the special circumstances connected with any particular case.

§ 3. Looking at the matter from a negative point of view, inefficiency may be said to be primarily a matter of waste. Every effort which the laborer puts forth without accomplishing the largest possible result is at least partly wasted. So far as the fact is concerned it makes no difference where the cause is to be found, whether in the laborer himself, in the employer, or in the industrial system. Every bit of material lost or destroyed in the process of production without resulting in a corresponding increase in wealth is likewise wasted. The same is true of every dollar saved and invested from which the fullest possible industrial result is not obtained. In all such cases the ratio of wealth produced to the human energy and the raw materials used in producing it is lower than it would otherwise be; and this is inefficiency.

It is sometimes said that what appears to be waste should be regarded as among the necessary costs of production. The saving of what is "wasted," it is argued, would be possible only at a prohibitive cost, if at all. If anything is to be accomplished some risks must be taken, and where there is risk there is pretty

certain to be some loss. It may be admitted that, as a practical matter, there is some truth in the argument, though it certainly does not apply in all cases, especially if the national point of view be taken. One should not, however, allow himself to be deceived by the use of words. The term "waste" may properly be applied to everything that is cast aside as useless, and that is the sense that is here intended. To say that particular wastes could be saved only at an excessive cost is simply to say that to avoid them greater wastes must be incurred. It is not to deny that they are wastes. The scrap heap, whether the term be used literally or figuratively, may be an unavoidable incident to production; but, even so, it represents a real loss, especially when it consists of resources that cannot be replaced, or of the workers themselves. Improvements in products, in processes, or in organization that will reduce these losses are real steps in economic progress.

It should be noticed that large accomplishment, considered by itself, is not proof of a very high degree of efficiency nor is large waste, considered by itself, proof of a very low degree. Efficiency is a ratio; and its value is dependent on the relation between two quantities. It is doubtless true that there can be no accomplishment where there is no efficiency, and that any waste is incompatible with perfect efficiency, but neither accomplishment nor waste taken alone, shows even approximately what the degree of efficiency is. In American industry wastes are conspicuous; but it must not be forgotten that the output is large. How American industry compares with that of other countries it is difficult to say; and in this connection it is

not necessary. It is certain, however, that a saving of wastes, other things being equal, would mean an increase of efficiency.

Among the great wastes of American industry are those that have to do with natural resources. Entire forests, for example, are destroyed, with no effort at replacement, for the sake of the best of the timber, the rest often being burned on the ground where the forest stood. Part of the mineral is taken from mines and the rest is left though it can be recovered later only with greatly increased difficulty. In the case of capital large financial losses, some of them due to the methods of high finance, show a very considerable waste. Besides these there are great wastes of labor, not only through useless work, but through losses that directly affect the lives and happiness of the workers. Accidents take a fearful toll of human life, and in many cases the ages at which men cease to be regarded as useful are distinctly low. Even where the laborer is only temporarily discarded there is often serious waste. It would be hard, for example, to conceive of a more striking illustration of industrial inefficiency than appears in the spectacle of a man able and willing to work, but unable to find a job.

§ 4. The distinction between hard work and efficient work is often overlooked. They are, in fact, very far from being the same. Under a given set of circumstances two men may be equally successful in attaining a given industrial end; but for different reasons. The one may work hard and long; the other may find the task an easy one and soon accomplished. The first represents hard work; the second efficiency.

It is not otherwise with nations. Of two having an equal record of accomplishment the people in one may work hard and long for low wages, and, while having all that is really necessary to enable them to do the work, may enjoy comparatively few of the comforts and conveniences of life, while in the other the work may be done more easily, the hours may be shorter, the wages may be higher, and the people may have a higher standard of living. In this case it is easy to see that, other things being equal, the second is the more efficient.

It follows that the less efficient man or nation may be able to show a greater record of accomplishment—at lease along certain lines—than the more efficient. It may be objected, however, that hard work is an element in efficiency; and it may be said that the man who can be kept at work only with great difficulty cannot be regarded as efficient. To say this, however, is simply to say that a great deal of energy must be expended in order to secure product from him. Of course he is not efficient—from the point of view of the employer. From a more general point of view the question is not how much he works but how much he accomplishes when he does work. So in the case of nations, the question is not how much work they do, but how well they do it. It is, of course, true, as regards both men and nations that a certain amount of work as well as efficient work is necessary for success.

While a consideration of the desirability of efficiency is not properly a part of the definition, it should be noticed here, to avoid misconception, that the highest percentage of efficiency is not necessarily conducive to

human welfare. Maximum efficiency, for example, might be secured by a working day of four hours, but the loss of the wealth that might be produced in a longer day might be much greater than could be compensated by the gain in efficiency. Again, the highest efficiency might be secured by the use of only the best means of production, but the gain in efficiency might well fail to offset the loss of wealth that might have been produced with the inferior means. Moreover it must not be supposed that the largest possible industrial product should be made the chief end of human life; and that all human energies that are not used in industry are wasted. With such questions as these, however, the definition of efficiency has nothing to do.

§ 5. The term "industrial efficiency" may, of course, be restricted in its application to particular individuals or groups, and where so restricted its meaning is somewhat qualified. From the point of view of the ordinary business concern, as at present constituted, the significant thing is how well the industrial means under its control are used to acquire wealth for it through production. For it the pecuniary aspect of things is of first importance. Its costs appear as expenses. The wealth produced appears under the form of money income. Failure to make full use of its economic resources to secure, directly or indirectly, a net pecuniary return is waste. The securing of such a return depends on the sale of its goods or services at profitable prices. For this reason the ability to "get the business" is, for it, an important element in efficiency, even though the business would be done in

any event, and as well as that particular concern could do it. For it many of the so-called wastes of competition, even if rightly named when looked at from a broader point of view, are not wastes at all, but in so far as they yield a net pecuniary return, represent time and money well spent.

It must not be inferred that the business concern that is industrially efficient from this somewhat narrow point of view, secures its pecuniary return entirely, or even largely, at the expense of someone else, or that its operations are wholly incompatible with industrial efficiency in the broadest sense. Low wages, long hours, and evil conditions of work, for example, do not necessarily imply a low cost of labor, even from the employer's point of view. Undue gains at the expense of consumers may prove very unprofitable in the long run. Indeed the exponents of the laissez-faire school have generally held that normally the business concern that successfully pursues its own interests, at least so long as the methods used are economic in character, really achieves the public interest as well. There are very few economists now who would take this position without very important qualifications. Granting, however, that the exponents of laissez-faire did not see the whole truth, there is no reason to doubt that they saw a very large part of it. While there are some things desirable in the interest of industrial efficiency, viewed from the standpoint of the individual business concern, that are unfavorable from the standpoint of the nation or of society at large, there are many others that are decidedly favorable. It is by no means impossible that, under certain conditions, these

two sets of interests could, for practical purposes, be brought into substantial agreement.

There are a number of methods that can be used to aid a business organization to secure a pecuniary return that are not really industrial in character, and should not be regarded as elements in industrial efficiency from any point of view. To set fire to a competitor's plant, to steal his business secrets, to stir up discontent among his employees, to spread false stories as to the inferiority of his goods, to force upon him litigation undertaken, not to determine rights or to enforce them, but simply to harass him are means, of an obviously unfair sort, by which a concern can sometimes secure a business advantage for itself. Methods of this sort have economic aspects in that they involve expense and yield an economic return; but they are scarcely more industrial in character than are the operations of a highwayman.

The same criticism, however, does not apply to all unfair methods of competition. Railroad rebates, for example, may be secured because the concern receiving them is able to offer the railroad company a valuable consideration in the shape of a large volume of traffic and regular shipments. Such a bargain may easily be of the sort that would ordinarily be regarded as entirely legitimate in dealings between two small private corporations. A concern producing a variety of goods may sell those that are covered by patents to purchasers of non-patented goods at lower prices than to those who buy the patented goods only. The ability to make use of such methods as these may properly be regarded as an element in industrial efficiency from

the point of view of the individual concern. To say this is not, of course, to say that they are praiseworthy, or that they should not be made illegal.

§ 6. The national point of view in regard to industrial efficiency differs in important respects from that of the individual business concern. The pecuniary aspect of industry is of relatively little, if of any, significance. Costs are measured directly in the effects of industry on the nation's own people and on its natural resources. Save in connection with international trade, the amount of wealth produced is measured not so much by its market value, as by its capacity to satisfy the wants of the people, individually and collectively. A gain of one of a nation's business concerns at the expense of another is pertinent to industrial efficiency from a national point of view only through its incidental effects or through its reaction on human energy or on the use of national resources. The term "wastes of competition" has a real meaning, though it must be remembered that not everything that is put under this head really belongs there, especially if it be true that competition is an important means of securing industrial progress.

So far as foreign trade is concerned the national point of view has many resemblances to that of the individual concern. "Getting the business," for example, is an object of national interest. This is presumably one reason why the United States permits combinations for the export trade, notwithstanding its hostility to combinations in domestic business. In the same way an effort is made to encourage home industry with very little regard to its bearing on the indus-

try of other countries. A protective tariff, for example, may be desired for military or political reasons, but in most cases the reasons are primarily economic. The proponents of a protective policy generally argue, in effect, that it will make home industry and resources redound to the greater good of the nation; its opponents deny that such a result will be secured; but both ordinarily look at the matter, ostensibly at least, from a national standpoint. The same principles apply, in a large measure, to a nation's whole policy. It is not contended, of course, that a nation's attitude is, or ought to be, entirely selfish; but simply that, as regards industry, it has interests of its own. It is not denied that in their efforts to direct national policy individuals are often actuated, consciously or unconsciously, by their private interests or that there is such a thing as "logrolling"; but as a general thing the arguments that they advance must, to be successful, be those that have to do with the national interest.

As in the case of the individual concern, so in the case of the nation, there are methods of securing economic results that are not industrial in character. The conquest of territory containing rich mineral resources, for example, may be an important factor in adding to the wealth of a nation; but conquest is a military rather than an industrial matter. This is not materially altered by the fact that under modern conditions great military power is hardly possible where industrial efficiency is seriously lacking. In the same way, concessions wrested from a backward people may be a source of national gain that should not be attributed to industrial efficiency. Treaties forced on a

weaker people may be a means of securing trade advantages but however ably the treaty may be drawn it does not indicate industrial efficiency. To be sure, it may show efficiency of a different sort. Predatory and industrial efficiency may go hand in hand but they are essentially different in character and must be differently judged.

Industrial efficiency from a national point of view implies, of course, the efficiency of the individual business units. Unless, however, the doctrine of laissez-faire be accepted in an extreme form the decision as to what is an efficient concern must depend on the point of view taken. As has already been suggested the two here under consideration may, under certain circumstances, be brought into practical agreement. This is what would happen if governmental regulation were of such a character that what was unfavorable to national industrial efficiency were made unprofitable to a private concern, and what was favorable were made profitable. In a measure, prohibitory laws, with penalties attached, are suitable to the application of the first of these two methods of bringing about a reconciliation; but it may be doubted how far they are ordinarily framed with that idea in mind. The second method seems to have received comparatively little attention.

What may be called the humanitarian point of view, or the broadest point of view possible, takes into consideration the welfare of mankind at large, and not merely that or particular individuals or groups. It differs from the national point of view most obviously in connection with international trade. Clearly the energy spent to secure the business for the people of

one nation rather than for those of another is efficiency from the humanitarian standpoint only so far as it puts the business into the hands of those who can do it best or develops the industrial powers of mankind as a whole. Besides this, any aid or assistance that the people of one nation can give to those of another has an important bearing on industrial efficiency in the broadest sense. The financing of foreign industry, for example, even if it have no appreciable effect on the nation to which the financiers belong, is to be judged, not by the pecuniary gain accruing to them, but by its effect on the amount of wealth produced in the whole world. It may be said that any aid or assistance which one nation gives to another reacts, in one way or another, to its own advantage. This is probably true to a greater extent than is generally realized, but the mere assumption that it is entirely true is unwarranted. It is one of the things to be proved before it is accepted; and the proof involves a separate study of national industrial efficiency.

The point of view here adopted is frankly the national one. The reasons for this will appear later.[1] Throughout the entire discussion, however, it should be borne in mind that where the term "industrial efficiency" is used without qualification, expressed or implied, the national point of view is the one taken.

§ 7. The modern industrial world is highly dynamic; and one important element in efficiency is the extent to which the capacities of the people are so developed and so organized as to enable them to cope with the forces of change. A nation in which this

[1] Chapter IV, § 1, pp. 60-64.

element is neglected may, temporarily, be more efficient than a nation, otherwise equal, in which it has received due attention; but its average efficiency will be lower. On the other hand, the importance of changing conditions must not be exaggerated. Static forces are at work in the modern industrial world quite as truly as are dynamic; and the ability to deal readily with the latter may be secured at the cost of lessened ability to deal effectively with the former. In so far as the development and organization best suited for the one sort of ability are not those best suited for the other a balance should be struck between them.

In this connection the specialization of the means of production is of great significance. Far more can be accomplished with a given expenditure of human energy when labor, capital and organization are specially adapted to the purpose in view than when they are not. Specialization, however, costs something. Knowledge and skill are ordinarily acquired slowly and with much effort. To devise and construct a highly specialized machine requires a considerable amount of labor, some of which must be of a high grade, as well as raw materials. It is no simple or easy matter to build up an elaborate and smooth working organization. These costs, as well as what is accomplished by means of them, must be taken into account in judging efficiency. To a large extent the costs of specialization are fixed costs. Within broad limits they are independent of the amount accomplished by means of them. If any particular type of specialization is rendered worthless as a result of changed conditions before much has been accomplished the degree of

efficiency will necessarily be low. That great losses of specialized organization, equipment, and skill have taken place as a result of rapid changes there can be no question. It does not follow that, even in these cases, there has been no net gain. On the contrary, the gain has, in most cases been large. Nevertheless, the losses are real losses and their reduction would mean an increase in efficiency.

The losses resulting from changed conditions where industry is highly specialized are not necessarily total losses. There is often a considerable amount of salvage, some at least of the specialized elements being adaptable for other purposes. The Great War, for example, brought about violent changes in American industry. Much specialized labor, capital, and organization were diverted from their original purposes to those made necessary by the war. This involved considerable loss and waste; but the cost was far less than would have been the cost of developing from the beginning specialization of the sort most needed, assuming that to have been at all possible. The principle applies in many other cases. Changes are rarely so radical as to completely destroy the value of previous specialization, though the loss may be great. There may, of course, be cases in which previous specialization may be a cause of positive disadvantage. The salvage of a building that must be wrecked may well be less than the original cost of the materials, less a liberal allowance for depreciation. What is more serious, the specialized training and experience of a laborer may leave him worse off, so far as taking up a new line of work is concerned, than if he had never

become specialized. Probably such cases are rare. Even the most specialized training is likely to have some general developmental value.

General adaptability, or the ability to make adjustments to new conditions readily, is not to be obtained by the mere absence of specialization. It has a positive, no less than a negative, side; and, upon the whole, the former is of the greater importance. Even as regards capital goods arrangements can frequently be made to secure some measure of adaptability without great sacrifice of specialization, though not ordinarily without additional cost. A ship, for example, intended for commerce can be so constructed as to be convertible into an auxiliary naval vessel. In much the same way a laborer who is trained for a specific type of work can often, without much loss of specialization though not without additional cost, be made available for work of a different kind. Not only that, but the same breadth of view which is essential to general adaptability is often of great value, if not necessary, as a foundation for a high degree of specialization. Up to a certain point, which in some cases is far advanced, the best training for the two is much the same. Beyond this point they may differ so greatly that one of them can be developed only by giving to it time and attention which are no less necessary for the development of the other. The nation, of course, requires some men of both types though in what proportions depends on the needs existing at the particular time. In the case of industrial organizations, as in that of individuals or of capital goods, general adaptability and specialization are both desirable. Each involves costs of its

own. To a certain extent they are incompatible, and of course, the total amount of time and energy that can be given to them is limited; but there is no reason to doubt that a large measure of each of them can be secured.

CHAPTER II

BUSINESS TESTS OF EFFICIENCY

§ 1. It is fortunate that incomplete tests of industrial efficiency are of considerable value, for no others are at present available. Where efficiency can be measured with any reasonable approximation to accuracy it can best be expressed as a percentage. Such an expression, however, would in this case imply the ability to measure the results of industry and the amount of human energy and of raw materials utilized. What would result in the production of wealth if every effort put forth by the laborer and every sacrifice made told to the fullest possible extent and if there were no waste of raw materials is a matter about which it is possible to do little more than guess.

Physical goods, whether raw material or finished product, may, indeed, be measured by physical units, such as the ton, the barrel, or the board foot. Services can, in some cases, be measured by their physical effects, as is done when labor is paid by the piece or the job. In other cases they can be graded, at least roughly, as to quality and measured by time. The inadequacy of such measurements as these, however, for the determination of efficiency needs little discussion. Physical measurements, considered by themselves, are of little, if any economic significance; and

certainly they can throw little light on the amount of energy expended.

The value of goods and services is, indeed, an economic measurement; but many things have a value out of all proportion to their significance from the point of view of national industrial efficiency. There are many kinds of services, for example, the employment of which may enable a business concern to prosper in competition with others, and sometimes directly at their expense. It cannot be too strongly emphasized that the losses of the unsuccessful, even though under a given set of conditions they are an incident to progress, are real losses; and from a national point of view the value of the goods and services actually sold throws little light on them. Moreover, the only values that can be definitely ascertained, under present conditions, are market values, and these may differ considerably from normal values which are more fundamental. What is of even greater importance is the fact that value throws little or no light on energy expended or in the possibilities that lie in human energy applied to raw materials.

While, however, it is impossible, with at least existing knowledge as to the facts, to calculate the industrial efficiency of any particular organization or process, some very useful comparisons can be made. The tests that can be applied are incomplete; but the conditions may be such as to make it highly probable that the unknown factors are either substantially the same in all the cases under consideration or of comparatively little importance. Alternative ways of doing things, for example, may impose about the same requirements

on the workers, but one may involve the use of less raw materials to secure a given result. Indeed, there are some improvements that at the same time make things easier for the workers and require less in the way of materials per unit of product. In such cases it is fairly certain that the adoption of the improvement means increased efficiency, not only from a private point of view but from a national point of view as well. What is true in this respect of processes is true of organizations or types of organization. It may be impossible to calculate the degree of efficiency in any case, yet possible to say, with some confidence, which of two is the more efficient.

It will be well therefore to examine carefully some of the tests that have been suggested, with a view to determining not only wherein they are inadequate, but under what conditions and with what limitations they may properly be used. Such an examination will not only serve to show how far such tests are of value, but will throw some light on the sort of data needed for more satisfactory tests.

§ 2. From what has already been said it should be evident that in considering the matter from a national point of view it cannot safely be assumed that efficiency can be measured by profits or by the resulting stock market quotations. Large profits may be due to any of a considerable number of circumstances, some of which imply efficiency and some of which do not. It is clear that in the latter class must be put those based on excessive prices obtained through the exercise of monopoly power. So, too, must the profits that can sometimes be secured through misrepresenta-

tion of goods sold. Even when large profits are a result of low expenses they do not necessarily show efficiency of the sort here under consideration. Child labor may be profitable to the employer, but in the long run a cause of serious economic loss to the nation and to society at large. Under certain circumstances a concern may profit by the fact that there are at nearly all times a large number of unemployed men at the gates of the plant; yet the time and effort that these men spend in seeking jobs is, for the nation, a serious form of waste. Discrimination, through which favored concerns get transportation or supplies at lower prices than do their competitors, may be very profitable to the former, but do not necessarily show industrial efficiency on their part.

It should be recognized, however, that while large profits, considered themselves, are not proof of efficiency, they may, when supplemented by information of a sort that can sometimes be obtained, go a long way towards establishing a case in favor of the concern that makes them. If of two corporations engaged in the same line of business, selling their products in competition with each other, operating in the same general way, and securing their labor and materials under substantially similar conditions, one is more profitable than the other, there is at least a presumption that it the more efficient, even from a national point of view. The results of an analysis of such profits to determine the sources from which they are derived may greatly strengthen or weaken this presumption. Proper methods of accounting enable those in charge of a business tc see where its strong

and weak points are; and these points may be examined by the economist with special reference to the question of efficiency. Even under favorable circumstances the evidence secured by a study of profits will rarely, if ever, be conclusive, but this is because it deals with but a part of the problem. It may, however, be the best way of dealing with that part.

No concrete study of profits from this point of view has come to the attention of the present writer. Investigations have been made for other purposes, however, the results of which throw a good deal of light on the general subject. Such was the examination of the profits of the most important concerns in the American tobacco industry that was made some years ago by the Bureau of Corporations.[1] Since this investigation was not made for the purpose of determining efficiency, important data that might have been secured were not published. The report, however, is significant for what it omits as well as for what it contains.

When the combination known as the American Tobacco Co., was dissolved in accordance with the decision of the Supreme Court, seven companies succeeded it in the manufacture of domestic tobacco. The latter were, upon the whole, less profitable than the combination at the dates examined by the Bureau of Corporations, notwithstanding a larger volume of sales. This was not true for all kinds of tobacco, but it was true

[1] Report of the Commissioner of Corporations on the Tobacco Industry, Part III, Prices, Costs, and Profits, Washington, D. C., 1915. The facts mentioned in the following paragraph are taken from this report, pp. 14-23.

for the entire business. The reduction in profits was apparently not offset by a gain to consumers or jobbers, for there was no material change in prices. It apparently was not due to any gain to the tobacco planters, though on this point the report does not give full information. The prices of leaf used for plug, fine cut, and cigarettes declined while those for leaf used for smoking tobacco, snuff, and little cigars advanced. It is only fair to notice, however, that the closeness of the dates examined, while advantageous in many respects, is disadvantageous here, for some, at least of the leaf used by the successor companies was taken over by them from the combination. Factory costs, other than leaf, remained substantially unchanged. Such costs are of course made up of many items; and a fall in some might have been offset by a rise in others. They include such important things as wages and other working conditions involving expense. There is no apparent reason for supposing that there was much change in these matters, but for a full study of efficiency each of these expenses should be examined separately. Increases in selling costs, however, were general and affected nearly all types of manufactured tobacco. They are attributed by the Bureau of Corporations to the duplication of selling organization and to increased overhead expenses. The cost of advertising also was materially increased. Theoretically an increase in expenses of this kind might result in such an improvement in marketing as to justify them, even from a social point of view; but there is no reason to believe that this was true of the case in hand. Apparently all that it meant

was that a greater amount of work had to be done to accomplish the same result.

So far as the figures published by the Bureau of Corporations go, they seem to show that one result of the dissolution of the American Tobacco Co., was a loss in efficiency. It should be remembered, however, that the figures do not tell the whole story. Clearly the books of the companies need further analysis than is possible from the facts given in the report. Moreover the comparisons made cover but a short period of time, and less confidence can be placed on them than would otherwise be possible. It is true that if the report had been published later and a greater number of years had been included, the difference in time between the average for the combination and the average for the successor companies would have made comparisons more difficult and less reliable; but recognition of this fact does not make them any more worthy of confidence as they are. Again, it should be borne in mind that competitive conditions, such as they were, were comparatively new and that with the passage of time competitive costs might have been reduced. Upon the whole, this does not seem probable. If it be granted that competition was still far from complete it would be natural to expect a further increase of advertising and selling costs with the increase of competition. What might have happened, however, the evidence is not at hand to show. The report clearly does not cover the whole ground, but for the part that it does cover, it seems to show that the advantage, as far as national industrial efficiency is concerned, lay with the combination.

§ 3. Those who take the point of view of the consumer are frequently inclined to regard low prices, rather than high profits, as the chief, though not necessarily the only, test of efficiency. The argument, whatever else may be said about it, is fairly simple: industry exists primarily for the purpose of furnishing goods and services; the ability of any concern to do this, unless it is subsidized in some way, is limited by the costs of production, and prices, sufficient in amount to cover these costs, must be charged; any concern that can so manage its affairs as to sell regularly at low prices, without outside help, is performing better the functions that justify its existence than is one that must charge higher prices. It will be noticed that the question of costs is by no means ignored. In fact, it is assumed that low prices ordinarily imply low costs; and there are probably few, if any, who would hold that the conducting of business at a loss represents efficiency. Where low prices are made possible by the subsidization of a business concern or of an industry it is recognized that they are due to this rather than to efficiency. While, however, low costs are essential they are not enough; the consumers must get the benefit.

It can hardly be denied that the main purpose of industry is the production of goods and services. It does not follow, however, that an industrial concern is lacking in efficiency in so far as the benefits of its activity go to those who are connected with it as producers rather than to those who merely purchase its products. The former are consumers no less than the latter and the fact that they sell the particular

goods or services that they produce and buy others with the proceeds does not materially affect the principles involved. It is merely a question of who gets the advantage of low expenses. In either case the low expenses may be the result of efficiency or they may be the result of exploitation of labor, wasteful use of resources, or of something else that really implies inefficiency. The products of the sweatshop, for example, may be sold at low prices, but this does not mean that from a national point of view, the sweatshop is an efficient means of production.

It may be thought that low prices have two important advantages over high profits as an indication of efficiency. In the first place they nearly always imply larger production and therefore better satisfaction of wants, for, with possible exceptions that need not be considered here, more will be bought at lower than at higher prices. Unless, however, larger production can be carried on at a lower cost per unit, this means simply more work, not more efficient work. In the second place, high profits are often associated with monopoly and the need of keeping down expenses is less urgent for a monopolistic than for a competitive concern. Even if expenses could be taken as a fair indication of costs it should not be too hastily assumed that costs are higher under conditions of monopoly than under conditions of competition. In some cases they doubtless are, but in others they are not. Under the latter head must be put that important class of industries commonly known as public utilities. Upon the whole, it would seem that so far as throwing any direct light on efficiency is concerned the difference

between low prices and high profits is of little importance.

Low prices may, indeed, be taken as a starting point in a study of efficiency in very much the same way as may high profits. Like high profits they may be regarded as establishing a presumption, but only a presumption, in favor of efficiency. Where prices are low and at the same time profits are high, this presumption is greatly strengthened. The causes of low prices, no less than the causes of high profits, must be carefully examined. An English writer,[2] discussing the failure of the United States Steel Corporation to secure for the United States a larger share of the international steel trade, calls attention to the fact that under the combination costs and prices have been increased. He includes, however, among the "adverse circumstances," large rents and royalties, extra heavy taxation, and advances in wages, the two last mentioned being attributed to the talk of the high profits of the combination. From the critic's point of view the argument may be a sound one; but from the point of view of national industrial efficiency the fact that the Steel Corporation could pay extra heavy taxation, increase wages, and still be a prosperous concern, even though it did not succeed in expanding the export trade as much as might be desired, is decidedly favorable to it. Even as things are the export business of the Steel Corporation is far from small. It is quite possible that the price the United States would have to pay for a larger share of the world's

[2] T. Good, "The International Steel Trade," *Moody's Magazine*, June, 1916, p. 319.

steel trade, in the well being of its people, would be much too high.

§ 4. The last point suggests that high wages might be taken as a test of efficiency, quite as well as might high profits or low prices. Unquestionably the ability to pay high wages is a very important consideration, and the actual payment of high wages might do much to develop the efficiency of labor. Like high profits and low prices, however, high wages serve, at best, only as a starting point in the analysis. The vital question is why wages are high. The reason may, indeed, be found in efficiency; but this is not necessarily the case. High wages may, for example, be accompanied by a pressure on the laborer that quickly exhausts him; and the early exhaustion of the laborer may much more than offset the high wages shown by the payroll. A seasonal industry may not put an undue pressure on the laborer and may pay high wages during its period of activity; yet it does not follow that a concern engaged in a seasonal industry is more efficient than a concern that pays somewhat lower wages but gives steadier employment. Even if the general level of wages in a given country be high, the burden put upon the laborer moderate, employment steady, and the conditions of labor good, it does not follow that the industries of that country are, upon the whole, efficient. It may be simply that natural resources are abundant; and it may even be true that they are very wastefully utilized. The chief difficulty with this as with the other tests so far considered lies in the fact that they are largely concerned with the distribution of wealth,

whereas efficiency is primarily a matter of production. Where any group of persons receives a large return from industry it is not unnatural to suppose that the business that yields such a return is efficiently conducted. The same principle applies when industry as a whole is considered. The way in which wealth is distributed has, indeed, an important bearing on efficiency because of its effects on the factors of production. As a test of efficiency, however, it is inadequate. What would be favorable to the development of efficiency and what efficiency is are two very different questions.

§ 5. The man who has himself attained a large measure of business success is likely to emphasize very strongly the doctrine of the survival of the fittest; and there are not a few economists who seem to look upon success in the evolutionary struggle as the best test of efficiency. To such persons natural selection seems to pick out the concern that makes the best use of the resources at its disposal and to give it not merely a larger income, but greater industrial power. That it is those who serve society well that are selected is thought to rest upon the fact that consumers will naturally give the business to those that render the best service. Doubtless there are few serious thinkers who would take this position in an unqualified form. Practically all would admit that violence and fraud may put serious obstacles in the way of legitimate business success. Many would go further than this and would concede the possibility of other forms of unfair competition which tend to have the same effect. In general, however, those who emphasize survival in

the evolutionary struggle as a test of efficiency are likely to minimize the importance of such considerations as these, and not infrequently to regard the ability to meet unfair methods of competition as itself an element in efficiency.

It will be noticed that this test has much in common with the tests of high profits and of low prices. High profits are, among other things, the trophies of success; and so long as any concern is able to make high profits its survival is practically assured. The ability to sell regularly at low prices is one of the most important means by which success may be attained; though it is, of course, only one means and is not always sufficient. The point of view, however, from which survival is regarded as the best test is somewhat different. The idea of the survival of the fittest implies that there has been a contest, the result of which is to put power into the hands of those that can use it effectively. Generally speaking, it emphasizes the importance of the long run, for it implies that the struggle has been of such a character as to constitute a real test. The survivor is thought of, not as a mushroom growth, but as the result of a fairly long evolutionary process.

That the successful business concern is a product of evolution cannot well be denied. This fact, however, is by no means peculiar to it. The same thing is true of the most venomous rattlesnake and the most destructive boll weevil, as well as of the finest of wheat and the best of cattle. The fittest are, after all, simply those that best fit the environment, either because they are adapted to it or it to them. In this connection it is worth noticing that the living things most useful

to man are not, as a rule, those that have grown up under a process of evolution in which man has played no conscious part. It does not necessarily follow that a deliberate regulation of the development of human institutions is desirable, or that man has the capacity to regulate wisely. The mere fact, however, that the successful business concern is a product of evolution is very far from being proof that it is more serviceable to man than any of its rivals would have been had man so interfered with the evolutionary process as to give one of them the advantage.

It is doubtless true that the survivors in the evolutionary struggle ordinarily possess certain qualities in a highly developed form. What these qualities will be, however, depends very largely on the environment. It is only on the assumption that the conditions under which existing business concerns have developed, including the laws for the regulation of industry and the way in which they are enforced, are the best possible for the development of efficiency that it can safely be said that the most successful of present day concerns is the most efficient. Where no serious obstacle is placed in the way of railroad rebates, for example, the ability to secure them is an important element in survival. Where rebates are prevented or placed under a heavy handicap other qualities are given a greater significance. If rebates are forbidden, but the prohibition can be evaded, the ability to evade the law becomes an element in survival. It will hardly be argued, however, that it is equally significant as an element in efficiency.

It is true that the use of railroad rebates is generally

recognized as an unfair competitive practice; and some at least of those who regard survival as a test of efficiency would exclude unfair methods of competition. In so far, however, as it is admitted that unfair methods of competition exist and have an adverse influence the idea of survival under conditions of "natural," as opposed to human, selection must be abandoned as a satisfactory test of efficiency. Moreover, the introduction into the discussion of the idea of unfair competition raises the question as to what unfair competition is. One of the best definitions is that it is competition in which success can be secured otherwise than by efficient production.[3] To define it thus, however, and then to argue that survival under conditions of fair competition is proof of efficiency is simply to argue in a circle. Even if this difficulty be escaped by a different definition the idea of natural selection is somewhat modified. It is probable, however, that what many of those who emphasize the importance of success in the evolutionary struggle have in mind is really something different. It is not so much that survival is a test of efficiency as that the competition of business units, under proper conditions, is the means by which efficiency can best be secured.

It should be recognized, however, that, as a general proposition, the fittest will survive and prosper. Unless the terms be strictly used, cases of special misfortune might be regarded as constituting exceptions; but they are of little significance for present purposes. If the test of success in the evolutionary struggle is to be applied it is necessary to examine

[3] Clark and Clark, "The Control of Trusts," p. 103.

the conditions under which that success was attained and to determine, not only how far they are, in general, favorable to national industrial efficiency, but also how far, in the particular case under consideration, the causes of success are to be found in unfavorable factors. So used, the test of survival may be a good starting point in the investigation, but, considered by itself, it is, like the other tests that have so far been considered, incomplete. As a starting point it has some great advantages for it places the emphasis on the conditions that do, in fact, govern the character of national industry.

§ 6. It must not be assumed that the use of unfair competitive methods, or of other business practices that are justly subject to severe condemnation, is evidence of the lack of a high degree of industrial efficiency. For this there are several reasons. Under certain conditions efficiency alone may insure a large volume of business or even preëminence; but it does not follow that the successful concern will be able to turn into profits all of the advantage which its superior efficiency gives it; and the desire for profits may lead even the efficient concern to make use of unfair methods. The Bureau of Corporations, in one of its earlier reports,[4] pointed out that the efficiency of the Standard Oil Company could give it a monopoly only if it reduced prices to a point at which other concerns could not compete. A monopoly secured in this way, however, would be secured largely by the sacrifice of profits; and there is no adequate reason to suppose

[4] Report of the Commissioner of Corporations on the Petroleum Industry, Part I (1907), p. 22.

that the Standard Oil Company was willing to make such a sacrifice. More recently the Federal Trade Commission has remarked that the general use of unfair competitive methods by the big meat packing companies discredits their claims of superior efficiency.[5] It is doubtless true that evidence of illegitimate practices of the sort is sufficient to discredit claims that a preëminent position was secured simply as a result of high efficiency. It is not sufficient, however, to show that that efficiency did not exist. This is particularly clear in the case of a company that has a record of large profits as well as a dominant position.

To one who is open minded as to the merits of the competitive system it is a fair question whether the suppression of competition may not be a means of securing efficiency. The Bureau of Corporations, in the report to which reference has just been made, remarked that, admitting the efficiency of the Standard Oil Company, it was the result, rather than the cause of that company's greatness. Superior efficiency, the Bureau added, was made possible mainly by the magnitude of the company's operations, and this magnitude was secured largely by unfair practices.[6] The apparent implication that the Standard Oil Company and its predecessors were not among the most efficient concerns in the petroleum industry from the time when they entered the business is decidedly open to question; but there is little reason for doubt that with increased size came increased efficiency, and that the

[5] Report of the Federal Trade Commission on the Meat Packing Industry, Summary (1919), p. 74.
[6] *Loc. cit.*

increased size was, at least in part, due to the competitive methods followed.

What is true of the Standard Oil Company in this matter is almost certainly true of a number of other large combinations. Some of the advantages of large scale production are the results of size, and cannot well precede it. It does not, of course, follow that a size large enough to give monopoly is necessary to secure such advantages or that large size can be secured only by methods that imply the crippling of competitors or their exclusion from the market by other means than by offering superior services. Were competition perfectly fair, in this sense, and were none to start with any special advantage, the concern that was most efficient would doubtless be the one that would grow most rapidly in size, and with this growth in size might well come increased efficiency. The process, however, might be a relatively slow one. The advantages of large scale production can be, and often are, secured through combination; and when this clearly does not go so far as to restrain trade or to establish a monopoly it is not ordinarily regarded as objectionable, even under existing laws. Where, however, unfair methods of competition are practicable, whether because of the lack of proper regulation of industry or for any other reason, they may be a means of securing rapidly large volume of business and with it great efficiency.

That proof of the use of unfair competitive methods is inadequate as an answer to claims of efficiency is even clearer when the economies under consideration are those that result from monopoly and not merely

from large scale production. A saving of the wastes of competition is possible only when production is in some way restricted or suppressed. A revival of competition means the loss of this advantage. A full knowledge of market conditions, as regards both demand and supply, for example, is desirable to almost any industry, but it can be secured only when the entire field is under view. It is doubtful whether such a view can be obtained by any concern in the presence of substantial competition, though it might possibly be furnished by a governmental commission with sweeping powers of investigation. Again, one street railway company may be much more efficient in furnishing urban transportation than either of two rival companies could possibly be; but the advantage which one company would have vanishes with the entrance of a rival equally powerful and well situated. Monopoly, however great may be its economies, is not on that account self-sustaining. The source of inefficiency is to be found in competition itself—not necessarily in unfair competition.

In any consideration of the part which unfair competitive methods or the like have played in bringing success to a given concern, some account should be take of the character of the competition it has to meet. A concern which will not make use of unfair methods when they are generally prevalent in the industry in which it is engaged may be placed at a positive disadvantage. It should be remembered that the use of unfair methods is by no means confined to the great combinations or to lesser companies which have met with marked success; and it is at least possible that the

same ability which gives a high degree of predatory efficiency may also result in economic efficiency of the best sort. Miss Tarbell, who certainly cannot be accused of undue friendship for the Standard Oil Company, remarks: [7]

> The system of "predatory competition" was no invention of the Standard Oil Company. It had prevailed in the oil business from the start. Indeed it was one of the evils which Mr. Rockefeller claimed his combination would cure, but until now it had been used spasmodically. Mr. Rockefeller never did anything spasmodically. He applied underselling for destroying his rivals' market with the same deliberation and persistency that characterized all his efforts, and in the long run he always won.

It must not be inferred from anything that has been said in the foregoing paragraphs that unfair methods of competition should be approved or permitted. The point to which attention is here given is simply the extent to which proof of unfair dealing may be regarded as evidence of the lack of industrial efficiency; and in this respect it is of very little value. Indeed, unfair methods are most dangerous to concerns that will not use them when they are coupled with industrial efficiency on the part of those that will. When efficiency is seriously wanting unfair methods are much less likely to be effective than when it is present. It is true that an increase in economic efficiency may, under certain circumstances, be made possible by evil methods; but it by no means follows that these are

[7] "History of the Standard Oil Company," Vol. I, p. 156.

the only methods practicable or that the results will be as good as if legitimate methods were used. It should be noticed, however, that certain of the laws regulating industry, such for example as some of those against combination, have sometimes made it more difficult than it would otherwise have been for business concerns themselves to suppress illegitimate competitive practices. This is particularly conspicuous in the case of the railroads which, until recently, were not only forbidden to engage in certain objectionable forms of competition, but also forbidden to make any agreements by which such methods could be eliminated.

CHAPTER III

TESTS OF EFFICIENCY AND THE FACTORS OF PRODUCTION

§ 1. It should now be evident that for any satisfactory determination of efficiency from the national point of view the entire industrial situation must be carefully examined. Even to determine the relative efficiency of different concerns this examination must be far reaching. Profits secured, prices charged, expenses incurred, and success in competition are all inadequate as tests of efficiency, though each of them may be used to throw some light upon the subject. The problem cannot be solved by an examination of the books of industrial concerns, no matter how accurately those books may be kept nor for how large a proportion of the industrial concerns of the country they may be available. The question is one of utilities, not of prices, and of costs, not of expenses. It cannot be assumed that the highest efficiency will be secured under conditions of unlimited competition, and therefore it cannot be assumed that restraints on competition are inimical to efficiency.

In considering what are the more fundamental tests that are available a particularly helpful point of view is that from which the four factors of production—

labor, natural resources, capital and enterprise—are separately considered. Of course no sharp distinction can be made between the persons who represent these factors. In the first place all of them are men or women, and are in a large degree influenced by similar motives. In the second place, a large proportion of those whose coöperation is necessary for the successful conduct of industry are interested in more than one of the factors of production. The farmer who owns his farm commonly represents all four. Many of those whose main source of income is wages or salary own some capital; and the thrift movement, if successful, will greatly increase their numbers. The laborer in whom the spirit of enterprise is entirely lacking is not ordinarily a very good sort of laborer. Few of those who are primarily enterprisers, capitalists, or land owners are exclusively such. The industrial functions performed, however, are all of importance; and if they are to be performed in the best manner the conditions as regards each of them must be favorable. To some extent the conditions most favorable to one may be unfavorable to another. This is strikingly the case as regards those conditions that are dependent on the distribution of wealth, for the amount that is available for distribution is necessarily limited. Some allowance must be made for this fact in considering the efficiency of any particular class or group.

§ 2. So far as labor is concerned a natural avenue of approach is a consideration of the relation between the industrial object accomplished and the time and intensity of the labor utilized. It should be noticed, however, that no attention need be given in this con-

nection to the utility of the industrial object. That is undoubtedly a matter of great importance, but it has little to do with industrial, as distinguished from economic, efficiency; and certainly it is not a test of the efficiency with which labor is utilized. A man might be employed to dig a ditch where none was needed and then to fill it up again. It is clear that in such a case the labor would be used for a wasteful purpose, but if the work was done well, easily, and quickly the wasteful purpose would be accomplished in an efficient manner.

A serious complication arises out of the fact that the laborer is himself a part of society, and the effect of the work on his welfare and happiness must be taken into account. While industrial efficiency is primarily concerned with the production of wealth, and with distribution only so far as it affects production, it should be noticed that what the laborer receives is a share in the product of industry, and from a national point of view it should be regarded as such and not merely as an element of cost. What the laborer gets out of industry includes, of course, much more than his wages. It includes, for example, the environment in which his work causes his home to be established, the general character of the neighborhood, the proximity and character of playgrounds, schools, and churches. It includes opportunities for self-development and the stimulus to make use of them. This last point is of great importance, for potential powers of production, which are only potential, may generally be regarded as wasted. Their development and use would almost certainly make possible increased produc-

tion without a correspondingly increased cost, or the same production at a lower cost.

Because of the importance of the development of the potential powers and the influence which industry has, directly and indirectly, in this connection, the industrial character of the people is of great significance. It should be recognized, however, that a low industrial character may be due to innate incapacity as well as to lack of development. A nation built up by the selection of the strong and vigorous of other lands could doubtless produce more, and with less effort, than one built up by the immigration of the unsuccessful, even though the resources of the two were equal. This, however, is not because its powers are used more efficiently, but because they are greater. Within a nation one industry may have a much higher grade of workers than another. This may be due to the fact that the conditions in the first are more favorable to the development of the workers than those in the second or it may be due to the fact that the first gives employment only to those who are already of a high grade. The same principle may apply to different establishments in the same industry, though this is less likely. In every nation there are a number of individuals of inherently inferior caliber, and the industry or establishment that can make use of them should not be condemned on that account as lacking in efficiency. Indeed, a nation whose industry could make no use of such individuals would be seriously lacking in this respect, for such power as the inferior possessed would be going to waste. At the same time it is probable that there are far greater losses in modern indus-

try through failure to develop the powers of its workers than through the failure to make use of those of inferior capacity.

The attitude of the worker towards his work and towards the conditions under which it is done is significant, not only because of its effect on the contributions he makes to production, but because of the cost to him. Other things being equal, improvement in either respect means increased efficiency. It is readily recognized that "social unrest" is fairly sure to have an injurious effect on the quantity and quality of the work done; but it must not be supposed that the burden on the worker is correspondingly reduced. Indeed, the amount of human energy expended may actually be greater than where the worker is contented, but in so far as this energy does not show itself in the product it must be regarded as wasted. A feeling of contentment on the part of the workers is not, of course, sufficient. They must have a real interest in the work done and a desire to do it well. How a favorable psychological attitude may be secured and maintained is one of the important problems of efficiency, but as a test of efficiency it is enough to know whether or not it exists.

§ 3. The tests of efficiency in the case of natural resources have to do with the relation between the industrial result accomplished and the extent to which such resources are exhausted in the process, their development prevented, or their potential services neglected. As in the case of labor the utility of the industrial result accomplished need not be considered, and for similar reasons. In one important respect, however, the problem is much simpler than it is in the

case of labor; natural resources themselves have no interests, and no question is involved of costs to them or of benefits conferred upon them. It is true that the owners may bear costs or receive benefits, but the relation of the owners to the resources is ordinarily an impersonal one. It is mainly a matter of property rights; and while the institution of private property in natural resources has an important bearing on the efficiency with which they will be used it has very little significance in connection with the tests of efficiency. What the owners receive is, indeed, a share of the product of industry and from a national point of view should be reckoned as such and not merely as an element in the cost, but because of the impersonal relation of owners to resources it is much easier than in the case of labor to determine what they really do receive. This, moreover, has little or no reaction on the utility of the resources themselves.

Wastes of natural resources, at least so far as they take place before industry has advanced beyond the extractive stages, are comparatively easy to recognize, and one of the most important tests of efficiency is how far wastes of this sort are avoided. It is true in this case, as in that of any other factor of production, that savings may be made at an excessive cost in some other direction and when this is done the specialized efficiency secured does not mean increased efficiency for industry as a whole. This consideration is of special importance in connection with natural resources because many of the most obvious wastes could be saved only by a very large use of other factors of production. The burning of what is left in a forest

after the best of the timber has been removed, for example, is generally to be attributed to the large expenditures for labor, capital, and enterprise that would attend the utilization of the material thus destroyed and the low prices at which the finished goods could be sold. It is probably safe to say that in most cases the expenditures would not be unduly high in view of the costs nor the prices unduly low in view of the utilities produced. So long as the conditions remain unchanged it is quite possible that the saving of the forest material now lost would not result in any increase of industrial efficiency as a whole. Nevertheless the wastes represent inefficiency. What is needed is such a change in the conditions or the methods as would justify the saving of what is now lost. How this can be done need not be considered here. The tests of efficiency help to show what the problem is. They do not necessarily throw much light on its solution.

There are many natural resources which are necessarily diminished by use and which nature will not replace, at least within a period of time short enough to be significant for even the most far sighted nation. This is true of practically all forms of mineral wealth; and in some cases the amounts available are so limited as to make their conservation a matter of great importance. Generally speaking the mere fact of use, however great that use may be, cannot properly be condemned on grounds of efficiency. Indeed, as will presently be pointed out, efficiency commonly requires use. Where, however, use implies exhaustion the industrial efficiency of a nation over a considerable

period of time may well be less if resources are exhausted rapidly than if they are exhausted slowly. Unfortunately little allowance can, in practice, be made for a consideration of this sort. Very little can be known as to what the needs of the future will be, what new resources may be discovered, or what substitutes may be found for those resources now regarded as essential. Where it is clear that important resources are being exhausted rapidly, extravagant use may properly be taken as evidence of inefficiency, even though the methods used may not be wasteful. What is perhaps of more importance is the case in which two different methods are available for accomplishing the same result, one of which implies a diminution of resources while the other does not. This is sometimes the case, for example, with the generation of electricity by fuel and by water power. Under such circumstances the former method may properly be regarded as the less efficient.

The extent to which use is made of available resources is one important test of industrial efficiency. It must not be assumed, however, that the fullest possible use necessarily implies the highest attainable degree of efficiency, or that the test can be applied without regard to circumstances. As regards exhaustible resources present non-use or partial use may represent simply postponement, and as has just been suggested this may be favorable to efficiency considered with regard to a reasonably long period of time. Inexhaustible resources, however, may be thought of as constantly offering services to man, acceptance of which will not involve any diminution of the services

which will be offered in the future. Those that are offered now must be taken now or not at all. Even so, failure to accept them is not necessarily evidence of inefficiency. Where resources of any kind are superabundant some of them may properly be left unused. It is true that this superabundance may result from man's ignorance of the services which they might be made to render, and when this is so there is unquestionably inefficiency. As a practical problem, it however, is often impossible to say whether or not it is so. In some instances, it seems highly probable that it is not. In many places water, for example, seems to be available in quantities far exceeding any possible use for it, and while increased knowledge would doubtless discover new uses there would still be some surplus. In other instances it seems highly probable that with increased knowledge the surplus would disappear. While, therefore, there are undoubtedly some cases in which the test is practically useless there are others in which it can be used to show probable inefficiency and to suggest a line along which a remedy should be sought. Where inexhaustible resources are not superabundant, even in the light of existing knowledge, and some lie unused or are not used as intensively as the conditions would justify, the existence of inefficiency is fairly clear.

§ 4. The concept of capital is more complex than is the concept of labor or of natural resources. Even as to its definition economists are not altogether in agreement. For present purposes, however, it may be somewhat dogmatically defined as the product of industry used for further production. It differs from

natural resources in two important respects: it embodies human energy already expended as well as raw materials; and it is a form of wealth over the coming into being of which man has some control. It differs from consumers' wealth in that it constitutes, not the goal of industrial activity, but one of the means by which that goal may be reached. Since it is a product of industry the waste of capital implies the waste of labor, of enterprise and commonly the waste of natural resources as well. More than this, however, is involved. Since capital is wealth used for production it is wealth set aside from direct enjoyment. In other words, "waiting" or "saving" is involved. This waiting or saving is the essential function of the capitalist.

Since it is the element of waiting or saving that especially distinguishes capital from the other factors of production, it is with the relation between the industrial results of the use of capital and the human energy spent in accumulating and maintaining it that the tests relating to efficiency in the use of capital are primarily concerned. Putting it in less technical language, whatever makes the saving of a given amount of capital easier or its use more fruitful, other things being equal, means an increase in national efficiency. As in the case of labor and of natural resources the utility of the industrial result accomplished need not be considered; and what the capitalist receives must be regarded as a part of the national product and not merely an element in the cost. Capital resembles natural resources more closely than it does labor in the impersonal relation of the capitalist to industry, and it is therefore easier to determine just what he does

receive. On the other hand, capital ordinarily resembles labor more closely than natural resources in that human energy is required for its accumulation and maintenance.

It may, perhaps, be contended that saving is not a form of human energy on the ground, first, that it does not necessarily involve any disutility or hardship and, second, that it is a purely passive function. The first objection, even if the fact be admitted, is far from conclusive. Precisely the same objection might be advanced in the case of labor, for some work is pleasurable. It will hardly be contended on that account that it does not involve the expenditure of energy. In the second place, it must be denied that saving is a purely passive function. It obviously is not in those cases in which disutility or hardship must be overcome; and there can be no question that a large part of the capital in existence was saved under such conditions. Certainly this is true of the marginal part of it. Even where it does not involve hardship it ordinarily requires a motive, and this fact very strongly suggests the expenditure of energy. It must be remembered, moreover, that merely to refrain from consumption is not necessarily to save. To convert wealth into capital it must ordinarily be made available for production. This, in virtually all cases, implies the exercise of will power. If, indeed, it could be shown that some saving takes place automatically it would probably be correct to class that part under the head of natural resources.

In considering the efficiency with which capital is used attention may be given directly to the character

and use of capital goods. Clearly there is inefficiency when materials or equipment are ill adapted to their purpose or to the conditions under which they are used. Disproportionately large supplies of materials, for example, mean waste, not only because provision must be made for their care and even when such provision is made there is in many cases deterioration, but because unduly large supplies of material require a larger capital investment than would otherwise be necessary for the purpose. For the same reason idle machinery or other equipment means waste, and here the item of depreciation is often very important. In many cases physical depreciation takes place almost as rapidly when machinery is idle as when it is in use, and this is nearly always true of obsolescence. The inefficiency that is represented by idle equipment is so great that it has been seriously argued that a six hour day for labor would not mean less production than an eight hour day, for even if there were no more production per hour, two shifts of labor could be used with much less hardship to the men concerned than would be possible under the eight hour day. Clearly the argument does not apply to all industries. There can be no doubt, however, that in many the increased efficiency of capital would be at least a partial offset to the decrease in the amount of labor.

An inadequate, no less than an excessive, supply of capital goods may be a cause of inefficiency. In some cases it may mean idleness of plant, equipment and labor. It may result in inability to supply the finished product at the time when it is most needed. It may result in excessive depreciation. Railroad rolling

stock, for example, should be shopped at certain intervals, but when the amount of rolling stock is inadequate this is likely to be neglected, with the result that cars and engines wear out more rapidly than would be the case if more frequent examinations were made and small defects promptly remedied. Besides this such neglect may result in a considerable increase in accidents, with all the loss that they imply.

There is a test of a somewhat different sort in the use of which abstraction is made from the particular goods in which capital is embodied. Losses of capital may be clearly seen in the record of business failures; and similar losses occur which do not result in insolvency. It is true that in some cases these losses are to be counted as among the necessary costs of economic progress. Speculation in many of its forms is highly desirable under present conditions; and in any attempt to prevent the losses care must be taken lest the corresponding gains be also eliminated. Such an attempt to prevent loss, even though it be successful as far as capital alone is concerned, may result in a net loss of efficiency for industry as a whole. Nevertheless, progress cannot be satisfactorily measured by the extent of the losses. Many of the latter might be greatly reduced without any serious adverse effect on progress; and an increase in the proportion of gains to losses is itself an increase in efficiency. Enormous amounts of capital are lost through fraudulent promotion and fraudulent management. Possibly even larger losses take place through promotion and management which while in no sense criminal are unwise and incompetent. Even in the case of the most legitimate speculation

there are some losses which might be avoided through a better knowledge of the facts and a greater ability to interpret them.

§ 5. Speculation is strictly a matter of enterprise rather than of capital, for the enterpriser is primarily responsible for the way in which industry is conducted. It is his function to determine in what direction the industrial powers and resources of the community shall be utilized. It is he that decides what shall be produced, when, where, how, and in what quantities. Inefficiency on his part may show itself in the use of labor, of natural resources, and of capital. It is, however, because it is shown in connection with those factors that efficiency of this sort will here be considered with special reference to them. The taking of risk, for example, is distinctly a function of the enterpriser, but where losses occur it is commonly capital that is lost. It is well to remember, however, that there are some forms of inefficiency for which those who are primarily laborers, owners of natural resources, or capitalists, are primarily responsible, even though some degree of enterprise on their part is involved. The conservative investor, for example, is primarily a capitalist; but as a practical proposition he must select his investments, and in doing so must take some risk.

While the efficiency or inefficiency of enterprise almost necessarily shows itself in the efficiency or inefficiency with which the other factors of production are utilized, and is to be judged accordingly, it is sometimes well to apply a test directly to enterprise itself. The direct tests are those which have to do with the relation between the industrial result accomplished

and the available human capacities for the direction of industry. As regards the utility of the industrial result the enterpriser has a responsibility which those who represent the other factors of production do not, but even his responsibility is limited. It is his function to interpret correctly the demands which society makes upon industry, but, as enterpriser, it is not his function to pass judgment on those demands. This does not mean, of course, that he has no responsibilities as a citizen or as a moral being or that, in case of conflict, his responsibilties as enterpriser outweigh his responsibilities in other capacities. As is true with regard to the other factors of production, what the enterpriser receives is a part of the industrial product and not merely an element of the cost. His relation to industry is, in many cases, a personal one, though in others it is not. When it is the principles which apply on this account to labor apply also to enterprise, though commonly with less force.

Since it is the function of enterprise to direct industry, the enterpriser should be able to make full use of the knowledge available in regard to business needs, methods, and conditions, and to increase that knowledge. He should know his business thoroughly. He should be quick to learn of any changes that take place, to appraise them accurately, and when desirable to make use of them. More than this, enterprisers, individually or collectively, as occasion may require, should be able to see what changes are desirable and to put them into effect. This implies not only the full development of the business units, separately considered, but the establishment of the best possible relations

between them. In the case of an electrical company, for example, it is a function of the enterpriser to bring about the discovery and putting into effect of a use for the off-peak load. In some cases this may involve the extension of the functions of the electrical company itself, and in others the establishment of new relations with separate companies. Business associations and combinations are primarily matters of enterprise, and are of great importance in connection with the subject of industrial efficiency.

A closely related test is the extent to which the enterprising ability employed in production is actually directed towards its increase. Many of the "costs of competition" appear clearly in connection with the other factors of production; but it should be remembered that there is a further loss when the enterprising ability employed by one business concern is used merely to duplicate or offset that employed by another. A loss of this character is the more serious when the coöperation of those representing enterprising ability would lead to greater results than when one of them is acting alone. While the way in which efficiency can be increased is not under consideration at this point, it is worth noticing that evidence of inefficiency resulting from competition is not proof that a combination possessing a high degree of monopoly power is desirable. Not only must the efficiency of such an organization itself be considered, but even if it be found to be superior to that of the best of the competitive concerns the case is not entirely closed. One of the chief criticisms of monopoly is that it is lacking in enterprise. This does not necessarily mean that the enterprise

actually used is used inefficiently, but that the amount used is too small. The men upon whom the responsibility for the concern rests are comparatively few in numbers, and even if they devote themselves to business as assiduously as those at the head of a competitive concern, they might not accomplish as much as a considerable number of the latter.

While a distinction must be made between the amount of enterprise and its efficiency, it would appear that the failure to develop and use the enterprising ability of the men employed should be set down as inefficiency. It is true enough that an employer may take the view that his employees are not "paid to think," but to obey orders. Nevertheless the time and energy of the employee are devoted to industry, and in so far as they are not utilized in the best manner there is loss of efficiency. Theoretically it is possible to distinguish between enterprise and labor, and for many purposes it is very desirable to do so, but as a practical proposition they are both embodied, though in varying degrees, in the same individual. Where human energy, whether in the form of labor or of enterprise, is at the command of industry and not available for other purposes, it should be regarded as in the industrial process, even though no use is made of it, and should be taken into account in judging efficiency. In so far as industry is so organized or so conducted that it fails to utilize this there is waste.

CHAPTER IV

THE SIGNIFICANCE OF NATIONAL INDUSTRIAL EFFICIENCY

§ 1. THE question may perhaps be raised as to why, in a study of industrial efficiency, such as this is intended to be, the matter should be considered from a national, rather than from a cosmopolitan, or humanitarian, point of view. Not only must it be conceded that mankind is more important than any nation, but excessive emphasis on nationalism is regarded by many as among the chief causes of the Great War. There are, however, at least two good reasons for taking the narrower point of view. In the first place, as a practical proposition, it is chiefly by the nation that any broad plan for securing industrial efficiency must be put into effect. In the second place, a nation is not ordinarily an arbitrary aggregation or association of individuals, but a social entity, justified not only by the aid and protection that it gives its members, but by the function it has to perform in the development of civilization. While an excessive emphasis on nationalism is possible, and is dangerous from a national as well as from a social point of view, it does not necessarily follow that the organization of the peoples of the world into great nations is an evil or that the spirit of patriotism should be repressed.

Broadly speaking, the nation is the most comprehensive form of organization by which a definite economic policy can be given effect. In some instances, no doubt, such a policy may be imperial, rather than merely national, in scope; but for the purpose in hand the distinction between the nation and the empire is not of great importance and may safely be ignored. The significant thing is that the peoples of the world are organized into great political units, of which the nation is typical; but there is, as yet, no well established organization of the world as a whole, or even of the civilized portion of it. Not only is this true, but at least until very recently there has not been so much as a general recognition of the unity of interest on which a world policy must be based. The nations have not even been able to coöperate to an extent sufficient to keep the peace. Internationally, the condition that has long prevailed and, except as modified by recent developments, still prevails is literally so near to being one of anarchy that the term may properly be applied to it.

The policies of the nations in their dealings with each other are, of course, greatly influenced by what is called international law. Unfortunately the term is hardly warranted, for such law has no real sanction. It rests chiefly on precedents, customs, understandings, formal agreements, and the like; but such influences as these are not, theoretically at least, incompatible with anarchy. Indeed it is very largely upon them that the more intellectual anarchists rely for support in their contention that anarchy within the nation would not result in social chaos. It is true that the

roots of the Common Law are to be found in such influences, but they are not themselves law nor do they necessarily embody it. Law arises only when they are recognized and the conduct that they prescribe is enforced by the state. In the same way, international precedents, customs, understandings, agreements, and the like can develop into real international law only when they are recognized by the nations as matters of common concern and the conduct which they prescribe will be enforced, if necessary, by others than the parties most directly interested and their allies. To say this is not to deny that what is called international law is of great importance under existing conditions. It undoubtedly exercises a strong influence in the present and lays the foundations for real international law in the future.

There are those who are opposed to international law as that term is here used on the ground that it implies something in the nature of a "supergovernment" and a limitation of national sovereignty. To advance this objection is to imply that international anarchy is preferable to international law, for unquestionably international law must impose limitations on the right of a nation to be its own judge in all disagreements that it may have with other nations. In a sense an organization which determines what the international law in any particular case is and provides for its enforcement must be a "supergovernment." It is not implied, however, that it could exercise any arbitrary powers. It might be strictly constitutional in character and narrowly limited in scope. Undoubtedly the first steps towards its establishment should be cautious and ten-

tative, but some steps should be taken. The alternative to international law is international anarchy.

It is highly improbable that any international organization that might properly be formed under existing conditions could, in the immediate future or for a long time to come, exercise much direct influence on industrial efficiency. Something might be accomplished through the maintenance of conditions favorable to international agreements; but in the main it is probable that the nations must long remain the largest economic units into which society is organized. That this should be so is not wholly undesirable. It must be remembered that the nation, as it exists today, is not a mere creature of man, but is a result of evolution. It is appropriate to a certain stage in social development; and until that stage is past the nations should continue to exist. Whatever else may be said of it, each nation embodies certain characteristics, institutions, and ideals which, under favorable conditions, may constitute its contribution to civilization. In some cases the potential contributions of the different nations are not incompatible; and the progress of civilization may be peaceful. In other cases conflict of some sort is inevitable; and each nation must serve as the champion of its own characteristics, institutions, and ideals.

While this is not the proper place in which to discuss at length the functional character of the nation, there are a few points that should receive notice. In the first place, it is not necessarily implied that a nation exists solely for the purpose of spreading its own particular qualities. It is not even implied that any such

purpose is deliberately pursued. It is enough that the nation performs this function. In the second place, nothing is implied as to how a nation comes to have those qualities. It may be, as is sometimes said, that the reasons for them are to be found exclusively in its history and environment. In the third place, it must not be taken for granted that the things for which a nation stands are necessarily the same at all times. They are at least subject to development, and this development may involve considerable modifications. In the fourth place, it is quite possible that the things for which a given nation stands may be evil instead of good. Which they will be depends not merely on the nature of those things, but on the attendant circumstances, among the most important of which is the stage of development that civilization has already attained. The desire for imperial power, for example, may, under certain conditions, be justified from a social point of view. Under other conditions the interest of civilization may demand its suppression, even though this imply the destruction of a nation having many valuable and noble qualities.

§ 2. There are few problems now before the American people that are of even approximately equal importance with that of securing a high degree of industrial efficiency. Upon progress towards its solution depends the material prosperity, and not improbably the life of the nation. Doubtless an increase in efficiency is not enough. Hard work, for example, is essential to great accomplishment. Unlike efficiency, however, hard work, at least when carried beyond a certain point, is opposed to well-being. What is of no

less importance, the possibilities that lie in this direction are limited; and an increase in efficiency is a means whereby hard work can be made to accomplish a maximum result.

The prosperity of a people means, of course, the prosperity of individuals; and for the great mass there is ample room for improvement. To bring this about the general level of efficiency must be raised. Even under a system in which distribution is based chiefly on contributions to production, a man's income does not depend entirely on his personal work and efficiency. No doubt an increase in personal efficiency will ordinarily result in either increased income or increased leisure, but how great the results of his own activities will be cannot be considered apart from his economic environment. It depends very largely upon the coöperation of those with whom he works, upon the tools and materials that he uses, and upon the way in which industry is organized. This means that, even as a producer the results of his efforts depend largely upon others, considered not merely as individuals, but as parts of organized industry. Even as a consumer he is not independent, for he must buy nearly all the things he needs; and the price, in the results of his own activities, that he must pay depends very largely on the efficiency with which those things are produced.

Looking at the matter in a somewhat different way, it is evident that the total amount available for distribution is the total amount produced, less the amounts consumed in the process of production. It is true that the system of distribution may be such that not all will share in the advantages of a large net product.

In so far as this is the case a proper change in the system of distribution would be a partial solution of the problem; but unless it reacted upon production in such a way as to bring about an increase in efficiency it would be only a partial solution. Under any system of distribution a large net product is essential if each is to receive a large income.

As regards the possible benefits that could be secured through a change in the system of distribution there are at least three important considerations that should be taken into account. In the first place, as has appeared in connection with discussions of the "living wage," the total income of the United States, if equally divided, would at best be barely sufficient to provide each with the income he should have if a reasonably satisfactory standard of living is to be maintained. Little or nothing would be left from which to offer rewards for any special contributions to production. In the second place a great part of large incomes is, under existing conditions, converted into capital, and in this way serves to increase production. From a national point of view, no doubt, even this part might in some instances be more wisely utilized than it is; but the gain would be only the difference between the benefits resulting from the new use and those resulting from the old. In the third place, in so far as incomes are really earned they are, in an important sense, produced by those who receive them; and to take them from the producers would, at least if the policy were carried beyond certain limits, seriously discourage production. Just what these limits are must depend upon a number of considerations that cannot here be con-

sidered. It is clear that fairly heavy taxation can be borne, even when it falls on earned incomes, especially when the taxpayers feel that it is really collected for the common benefit and that the distribution of the burden is a fair one. There are some reasons for thinking, however, that taxation is now being carried to the point where the discouragement of production is a serious consideration; though this is probably to be attributed to the method of taxation as well as to the amount. In so far as the products of industry are wastefully consumed the evil of some diminution of production might be small as compared with the good that would result from a change in the distribution of what was left. In this connection, however, the second point just considered must be borne in mind: in so far as even unearned incomes are wisely used the net gain that could be secured from diverting them to some other use would be far less than the gross.

In view of such considerations as these, it is mainly upon an increase in industrial efficiency that reliance must be placed for securing any great advance in the material well-being of the people. Not only this, but an increase in efficiency is practically necessary if the present level of well-being is to be long maintained. Even in America the pressure of population on subsistence is making itself felt. The frontier is gone. Generally speaking, production can now be increased only by harder work or by improved methods. It is true that there are some resources in the hands of private persons that are used little, if at all. Arrangements by which these would be properly utilized would be a step in the direction of efficiency. It is true also,

as has just been pointed out, that something might be gained by a better distribution and use of some of the income now available. The possibilities that lie in a better distribution of resources or of income, however, are limited, and the problems connected with their realization are very difficult. In so far as improvements of this sort are practicable they should be made; but even so far as they are practicable they are in most cases less desirable than would be in increase of incomes resulting from increased efficiency.

§ 3. Industrial efficiency is of importance, however, not only because of its direct effect on the well-being of the people in the manner just considered, but because the place of the nation in the world, if not its life, is at stake. To those who look upon the nation as embodying ideals for which its citizens should be willing to make a supreme sacrifice this will be the more important consideration. Even from a less idealistic standpoint the success of the nation has such indirect effects on the individual prosperity of its citizens as to make neglect of the means by which such success can be secured a very shortsighted policy. Were one nation to secure dominance over the world today, it is highly improbable that it would simply absorb the people of other nations and make them a part of itself, thus making them sharers in its own success and prosperity. Even if it were willing to do so it would, in all probability, be impossible. It is true that, quite apart from colonial systems, great nations have arisen from the union of peoples that were once independent; and this movement will doubtless continue. It is possible that eventually the entire world will be organized under

one government, in which the interests of all shall receive due consideration. Before that can happen, however, considerable changes in human nature must take place. In the meantime the peoples of the world will continue to be organized into nations, each of which will be primarily concerned with the interests of its own people.

Nations, no less than men and the lower forms of life, are engaged in a great evolutionary contest. In this contest the fittest survive and, upon the whole, dominate. The least fit generally perish. Between the two extremes there are many who survive and hold a more or less subordinate place in the scheme of things. By fitness is, of course, meant adaptation. The fittest are those who best fit themselves to the conditions or the conditions to themselves. In so far therefore as the survival of the nation, with the ideals for which it stands, and a high position in the world are desirable, it is a matter of vital importance that the national life be so organized as to secure fitness for success in the evolutionary struggle.

During perhaps the greater part of the history of mankind military power has been the most conspicuous, if not the most important element in group success.[1] The significance of military efficiency was particularly obvious during the stage of development in which subsistence was secured chiefly by direct appropriation. Even after industry had made considerable progress military strength was still of very great importance.

[1] Cf. Edward Van Dyke Robinson, "War and Economics in History and Theory," *Political Science Quarterly*, Vol. XV, pp. 581-622; reprinted in Carver, "Sociology and Social Progress," Ch. IX, pp. 133-173.

as has just been pointed out, that something might be gained by a better distribution and use of some of the income now available. The possibilities that lie in a better distribution of resources or of income, however, are limited, and the problems connected with their realization are very difficult. In so far as improvements of this sort are practicable they should be made; but even so far as they are practicable they are in most cases less desirable than would be in increase of incomes resulting from increased efficiency.

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It may seem, especially in view of the Great War, that it is of no less consequence today than it ever was. Certainly military efficiency has an importance that cannot be denied; and failure to make adequate provision for national defence is to court the gravest disaster. It is clear, however, that under modern conditions, industrial efficiency is one of the first essentials to military strength. A modern war is fought as truly in the factories and workshops as it is in the trenches. One of the chief sources of strength of the Central Powers, as has already been pointed out, was to be found in Germany's efficient industrial system, which for a long time made it possible to keep their armies supplied with all things needful.

But while war is the most conspicuous and the most drastic form taken by the evolutionary struggle among nations, it is by no means the only form; and there is no adequate reason for thinking that the contest would cease if international anarchy were replaced by international law. Certainly the maintenance of law and order within a nation does not terminate the contest between individuals. It does, however, cause it to assume new forms, among the most important of which is competition.

§ 4. From an evolutionary point of view competition is a contest no less real and no less significant than actual fighting. Within the nation those who are most successful in the field of business not only secure wealth, with all that wealth can give, for themselves and those in whom they are interested; but they attain positions of preëminence and power. The use of capital not their own is entrusted to them, commonly

through the corporations that they control. It is they who are the great employers of labor. Because of their ability to use natural resources they can offer a price for them that will not ordinarily be refused. Those who attain success in a less degree attain positions of less power and influence. The tragedy to those who are unsuccessful and who must face years of poverty is, perhaps, not less than that of those who are defeated in a more primitive form of contest. Competition, however, has at least the advantage over fighting that there is a closer connection between the ability to secure control of economic resources and the ability to use them effectively. Under better conditions this connection would be closer than it is, but the contest would not cease.

There is much reason for thinking that the analogy between the individual and the nation in this matter is a close one. It is, indeed, easier to conceive of a self-sufficing nation than of a self-sufficing individual; yet it is hardly practicable for a people possessing great natural resources to shut itself within its own borders and to have no dealings with the peoples of other lands. Even if international law were well developed and well enforced it would probably not permit anything of this sort; and, under ordinary conditions, it is only a backward and unambitious people that would wish to pursue such a policy. If, however, a people has intercourse with others the evolutionary contest takes place. Probably the economic contest among nations will differ in some important details from the similar contest between individuals, but it will not be fundamentally different in character.

A country with considerable natural resources which it is unable to utilize effectively offers an inviting field for economic activity on the part of citizens of more highly developed lands. In the case of backward nations the result is likely to be the granting of "concessions" and the making of contracts with foreign corporations that are highly favorable to the latter. While, unhappily, fraud and even force have sometimes played their part in securing such advantages, a large element in most cases, and the only element in some, is the fact that the foreigners can pay a large price for the advantages they receive. It is in this way that some countries can most readily secure the building of railways and the establishment of industries necessary for their development. It must be recognized, however, that the steps from foreign economic activity, through foreign influence, to complete foreign control are often few and short.[2] Whether or not these steps will be taken would seem to depend on the special circumstances of each case.

One of the most important of such circumstances is the capacity of the people to learn to use their resources effectively, and to assume industrial leadership. In some cases foreign activity may have an educational and stimulative value to which the natives will readily respond. Under such circumstances, if conditions are otherwise favorable, foreign influence may weaken, as it has in Japan. In other cases the people may have considerable potential capacity, but unless protected

[2] Cf. Kemmerer, "Theory of Foreign Investments," *Annals of the American Academy of Political and Social Science,*" Vol. LXVIII, November, 1916, p. 2.

in some way, may lose their opportunity for independent development before this capacity can be realized. It is probable that something of this sort would have happened in China long ago, had it not been for a balance of power among some of the interested nations, and a policy favorable to Chinese independence on the part of others. Even as things are the independence of China is far from being unqualified. The influence of the Monroe Doctrine, which has received but little sympathy from any European power of the first rank except Great Britain, has been favorable to the independent development of the Latin-American republics. With its implied assumption of superiority the Monroe Doctrine has, not unnaturally, been a source of irritation to the republics themselves; and the United States may well view with satisfaction their development beyond the point where it is really needed for their protection.

When a country offers great opportunities for foreigners, not because of the industrial inferiority of its own people, but because of the abundance of its resources, the results are likely to be quite different. Foreign capital will, indeed, seek investment; and it will be welcomed, but it is much more likely to enter through the instrumentality of domestic corporations and under domestic leadership. This has been notably the case in the United States and in the self-governing colonies of Great Britain. The situation is not entirely without its dangers, but these are likely to be of relatively small importance and to diminish and even to disappear with the passage of time. Where the laws and institutions are favorable to the successful conduct

of industry, foreign capital has little excuse for demanding specially favorable terms.

§ 5. It is not only through the development of resources by foreign enterprise and foreign capital that a people may be relegated to a subordinate position or entirely obliterated. Under certain conditions large numbers of foreigners may come in person, and instead of becoming identified with the native population, may take more or less peaceful possession of the country. They may secure control of the resources by offering a price that the natives will not refuse. They may become dominant in industry, commerce, and finance by rendering better service or by rendering equally good service at a lower price than the natives are willing, or perhaps able, to do. Of course it does not necessarily follow that they will make the country entirely their own; but dominance in economic matters certainly gives the newcomers a decided advantage. Eventually the original occupants may be forced to take a distinctly subordinate position or may even be eliminated. In some cases they may be absorbed by the newcomers.

It must not, of course, be assumed that large immigration will necessarily prove an evil, even from the point of view of the nation to which the immigrants come. On the contrary, in some cases they may become an integral part of the nation and may be a source of economic and social strength to it. They may therefore contribute greatly to its ability to serve its own people and mankind. Much of the immigration from Europe to the United States has been of this character. It should be clearly recognized, however,

that nation building of this sort is not always the result of immigration. Quite aside from the introduction of elements that are themselves undesirable, its sometimes happens that the immigrants and the natives are so different in character or in civilization that they cannot be amalgamated into one people. When this is the case immigration, if extensive enough to be of importance, may be regarded as a sort of invasion. Though non-military in character, it is a phase of the evolutionary struggle between peoples. In the end the country is likely to belong to one or the other of them.

From the point of view of humanity at large, peaceful conquest of this sort is not necessarily a matter for regret. It is largely through the rise of the superior elements that progress takes place. It would be unfortunate, to say the least, if a distinctly inferior people should remain indefinitely in control of resources of which they could not make effective use. It must not be hastily assumed, however, that in all cases in which the immigrants tend to replace the native population this is due to any real superiority of the former. The fact that they tend to become dominant may, indeed, show fitness in the evolutionary sense; but it does not necessarily show that they are best qualified to contribute to the welfare of humanity. It is quite conceivable that a people should devote itself too largely to industry to the exclusion of other things, and work hard and long while maintaining a low standard of living. Under certain conditions this might constitute fitness; but it might nevertheless be undesirable, from the point of view of humanity, that such a people

should replace one possessing certain other qualities. In the same way a military people might replace an industrial one; but the result would not, in most cases, be social progress.

It is not to be expected, of course that the nation directly concerned will look at the matter from a disinterested cosmopolitan standpoint. Indeed, it is hardly possible, at the present stage of human development that it should do so; nor as far as the evolutionary struggle is the most effective means by which future development can be brought about, is it desirable. It is, therefore, entirely natural that when the competition of immigrants makes itself strongly felt by the natives, a policy of total or partial exclusion should be adopted. There are a number of considerations having little direct bearing on the production of wealth that may justify such a policy.

It should not be overlooked, however, that the result may well be to place the evolutionary struggle on a military, rather than on an economic, basis. This does not mean that war will necessarily result, for the nation adversely affected will take many things into account in deciding on its own policy. It is natural, however, that a nation in which the pressure of population on resources was keenly felt should regard the exclusion of its people from the resources of another as a real grievance. Where these resources are relatively large as compared with the needs of the people holding them, a policy of exclusion has some of the aspects of a dog in the manger policy. In reality the future of its own generations may be at stake. It seems unlikely, however, that under existing conditions

a people having large resources, but lacking the ability to defend itself in a military way, or to call powerful nations to its defense, would be permitted to exclude immigrants from strong nations, should they wish to come in large numbers.

§ 6. In emphasizing the importance of industrial efficiency it should not be forgotten that great riches, or a large income, are not of themselves sufficient to insure national health and prosperity. What else is needed to make a nation worthy of a high place in the world and one in which citizenship is especially desirable cannot here be considered in detail or at length; but the opinion may be expressed that there are spiritual possessions or characteristics that are of no less importance than the material. Even on the most materialistic basis, however, strength and happiness are not dependent solely on economic wealth or income, important as these are. It is at least conceivable that in some cases industrial efficiency can be secured only at a great cost in some other direction. When this appears to be the case a method of reconciliation should earnestly be sought; and if none can be found a compromise, rather than a complete sacrifice of any important requirement of national welfare should ordinarily be made.

Under present conditions military strength, for example, is unhappily, a necessity. To secure it time and energy must be utilized which, under more favorable conditions, might be devoted to the production of wealth or to some other great object of human endeavor. So far as this means merely that less is put into the production of wealth the question is not one

of efficiency; though the evil may be a serious one. It would seem, however, that much of the effort devoted to the development of military strength might be so used as to make industry not only more productive, but more efficient. On the other hand, it must be remembered that military strength is largely dependent upon industry; and because this is so militarism furnishes a motive for the development of industrial efficiency. In some cases things may be done as an incident to the development of military strength which also serve to increase industrial efficiency. Most of the proposals for a national system of military training in the United States, for example, contain some provision for vocational education; and this might easily bring about an increase of industrial efficiency that would more than compensate for the loss of time which the military training would involve. It is, indeed, quite possible that many of the militarists regard the provision for vocational education as a concession that must be made in order to get their plan adopted, though others doubtless realize that it is one of the things needed for military strength.

While, however, militarism may not be incompatible with a high degree of industrial efficiency and may even be favorable to it in some respects, the passing of the evolutionary struggle between nations from a military to an economic stage is highly desirable. If militarism makes some contributions to industrial efficiency it also uses the fruits thereof extravagantly. If the need for military strength could be abolished at some cost in efficiency, it is by no means certain that a nation would be worse off, even from

a strictly economic point of view. It must not be assumed, however, that if the need for military strength were removed industrial efficiency would be reduced. The contribution of militarism, after all, has consisted largely in furnishing a motive; and when the significance of efficiency is fully understood it may be doubted whether the military motive is really needed.

§ 7. While a diminution of the importance of military strength might well be viewed with satisfaction, there are some social institutions the decline of which would generally be conceded to mean serious national loss. One of the most important of these is democracy. Between industrial efficiency and democracy, however, there is, at least apparently, some incompatibility. In most lines of industry efficiency requires production on a much larger scale than would be possible were each worker independent. The typical form of industrial organization in such cases is the corporation. The great mass of workers are employees; and though in some cases labor unions have considerable bargaining power as regards the terms of employment; it can hardly be said that the employees have much voice in the control of industry. Even if each corporation were completely democratic so far as those directly connected with it as producers were concerned, real industrial democracy could hardly be said to exist unless the consuming public were fully represented. In some cases, of which the railroads furnish a good example, a certain element of democracy is introduced through public regulation, but even here it will hardly be contended that real democracy exists, even so far as the general public is concerned. As regards most

industries power is largely, though not exclusively in the hands of a comparatively small number of men; and in the exercise of it they are not, as a rule, subject to any great degree of responsibility. The centralization of power, however, seems, under present conditions, to be in the interest of efficiency; but it can hardly be said that industry is itself democratic or altogether consistent with political democracy.

Upon the whole such evidence as is available seems to point pretty clearly in the direction of a still greater centralization of power; though in some cases the democratic influence of public regulation must be taken into account. In manufacturing the tendency towards greater centralization is clearly shown by the census figures. Between 1899 and 1919 the number of manufacturing establishments in the United States increased from 207,514 to 290,105, or 39.8 percent. During the same period the number of salaried employees increased from 364,120 to 1,447,227 or 297.5 percent, and the number of wage earners from 4,712,763 to 9,096,372 or 93.0 percent.[3] The dissolution of a few great trusts

[3] The figures showing the number of establishments, salaried employees, and wage earners were taken, and the percentages computed, from the Abstract of the Census of Manufactures for 1914, p. 16 and for 1919, p. 12. A little computation from the tables on page 391 of the Abstract for 1914 and page 354 of the Abstract for 1919 shows that in 1909 62.2 percent of the wage earners in manufacturing industries were employed by concerns having more than 100 employees, whereas in 1919 the percentage was 70.9. Though taken from different volumes of the Abstract the figures are apparently fairly comparable for the intervening figures are the same in both volumes.

The figures for 1919 are perhaps made abnormal by the Great War. It is worth noticing, therefore, that the increase in the number of establishments from 1899 to 1914 was 32.9 percent, in the number of salaried employees 164.8 percent, and in the number of wage earners 39.3 percent. The percentage of

is of little significance as far as the general movement is concerned. Even when a dissolution takes place the number of independent companies formed as a result is likely to be small. The American Tobacco Company gave way to only seven "successor companies," so far as the manufacture of tobacco was concerned, and the International Harvester Company to three.

There are some students of industrial conditions who feel that, in the interest of democracy, the tendency towards centralization should be checked; and especially that the trusts should be suppressed, even though this should mean some sacrifice in efficiency. While there are many, however, who believe that the trusts are not really as efficient as somewhat smaller concerns, there are few, if any, who believe that a return to small scale production is either practicable or desirable. Business must remain largely in the hands of great corporations.

A compromise between efficiency and democracy can be justified only so far as no satisfactory means of reconciliation can be found. Such a compromise necessarily means loss in both directions. The nation that can best reconcile them is in a position not only to increase the well-being of its people, but to strengthen itself in the evolutionary struggle. That efficiency and democracy cannot be reconciled, at least in a large measure, seems improbable. It must be recognized that democracy, or its lack, consists not in the degree of organization, but in the way in which power is distributed. If the trusts, for example, are

wage earners employed by concerns having more than 100 employees increased from 62.2 in 1909 to 65.1 in 1914.

undemocratic it is because the men who are in control of them are neither chosen by nor responsible to those who have a legitimate interest in them. The bearing of the centralization of power on industrial efficiency and the conditions under which such power may be more widely diffused will be considered in the following chapter.

It should be noticed here, however, that even at the present time there are some successful business organizations in which an extraordinarily large degree of democracy is to be found. This is true of some of the farmers' distributing companies, of which the California Fruit Growers Exchange is perhaps the best known example. This is a large and complicated organization. Within it are a number of district "exchanges," which are themselves divided into local associations. It controls about three-fourths of the citrus fruit shipped from California. It is a coöperative association, its members being the fruit growers whose products are handled through the Exchange. It is true that it does not, by any means, represent complete democracy in industry. It is the members, rather than the employees or consumers who have control. These members, however, are numerous, and may properly be regarded as workers, though they are much more than mere laborers. Such an organization is nevertheless far more democratic than is the ordinary corporation. Were it typical of industrial organization, a part, though only a part, of the problem of the reconciliation of efficiency and democracy would be solved.

CHAPTER V

FUNCTIONAL SPECIALIZATION

§ 1. ENTERPRISE, capital, natural resources, and labor are all essential to the success of industry. Each therefore constitutes a national interest of vital importance. Under present conditions the great majority of men are primarily interested in one of these, though many have a direct interest in more than one, and there are a few whose direct interest in two or more are so nearly equal that it is difficult to tell which really occupies the first place. Of course practically all men are interested in the success of industry and have therefore at least an indirect interest in all the factors that are essential to it. Generally speaking, however, there is one factor with which each producer is specially connected and on which his attention is centered. Specialization of interest, however, goes much further than this, for each individual is primarily concerned with the satisfaction of his personal desires. This generally includes the welfare, as he sees it, of those who are dependent upon him; and in some cases his desires are distinctly altruistic in character. Self-interest, however, even when the term is broadly used, is readily distinguishable from the national or group interest, and is ordinarily the chief motive for industrial activity.

According to the laissez-faire theory, it is through the pursuit by each of his own interest, subject only to such regulations as the exclusion of fraud and violence, that the interest of all, both individually and collectively, will best be advanced. Unquestionably, competition does, under certain circumstances, result in such large rewards for those who serve society well as to make it decidedly to their interest to render such service. Unregulated competition, however, does not always work in just this way. In many cases the individual holds a strategic position which gives him a decided competitive advantage, though he may not be the one who can render the best service. Not infrequently, for example, the employer may, in the absence of industrial regulation, find it possible to exploit labor and profitable to do so. Again, competition may be unfair in character without involving fraud or violence, at least in the sense in which the older proponents of laissez-faire understood those terms. Even where competition does reward most highly those who render the best service, selection often takes place at a very heavy cost to those who are unsuccessful, and through them to society. To some extent this is now generally recognized, but there is still a widespread belief in the efficacy of competition, under normal conditions, for the advancement of national welfare and for the giving of equality of opportunity to individuals. Cases in which competition does not bring about such results are regarded as abnormal. In the minds of most people there is a strong presumption in favor of competition and, perhaps it is not too much to say, in favor of laissez-faire.

Because of the defective working of competition in many cases, the conflict of interests which undoubtedly exists, and the prevailing spirit of individualism, industrial legislation has commonly been regarded as primarily for the benefit of a particular class or group. It is true that, under the American system of government, a public interest must ordinarily be shown to justify the enactment of any law, and especially of one which involves considerable expenditure. Very commonly, however, the public interest most emphasized is that of adjusting conflicts of interest between opposing groups or of securing the interest of one without undue prejudice to the interests of others. "Labor legislation," for example, is commonly thought of as legislation for the benefit of the laboring class. It has frequently been opposed by employers, sometimes, as the event proved, unwisely even for themselves. That labor legislation, wisely planned and executed, will strengthen the nation as a whole, is sometimes emphasized as an important consideration, but it is likely to be regarded as an excuse or a justification, rather than as a motive for it. The real motive is commonly thought of as the direct benefit that will come to labor. The fixing of railroad rates, to take another example, is commonly thought of as an adjustment between the interests of the owners of the railroads and the shippers. Generally speaking, governmental interference with industry has, in the past, been mainly protective, rather than constructive in purpose. It has been designed to prevent evils that arise out of the competitive system, rather than to strengthen the economic character of the nation as a whole.

To the general attitude of the government with regard to industry there have been some important exceptions. A large amount of constructive work has, for example, been done by the United States Department of Agriculture. For a long time the government has taken an active interest in the development of foreign trade. There has been a conscious effort to develop domestic industries. For some years before the outbreak of the Great War there were a few indications of a change in the general attitude. The Federal Reserve Act was a good example of constructive legislation. Doubtless it has its merely regulative and protective features, as it is quite right that it should have, but in the main it was designed to make the banking system of the country better organized and more effective. The Transportation Act of 1920 introduced into a statute that had previously been primarily protective in character some important constructive features.

The entrance of the United States into the Great War was immediately followed by a very considerable increase in the economic activities of the government. Great industrial changes, the normal effect of which would be to reduce per capita production, were a natural consequence of the abandonment of neutrality. Military needs required the diversion to military purposes of a large part of the energy that had previously been devoted to industry. The nation, therefore, sought, in an organized way, to develop a maximum degree of efficiency in the means of production that were still available. A serious effort was made to ascertain what were the real resources of the country,

what agencies were making use of them, what other agencies could be called into action, and how the different agencies could be coördinated and made effective.

Much of the economic activity of the government during the war was of an emergency character and has very properly been discontinued. There is little reason to doubt, however, that during the war it was widely realized that successful industry is of very great importance from a national point of view. Though there has been some reaction since the war and though the need is less obvious, a belief in the national importance of industry is more widely and more strongly held today than ever before, and that there is a much greater readiness on the part of the people at large to have the government exercise a direct influence on industry.

How far this is a result of the war it is difficult to say, for the movement would probably have been in the same direction under normal conditions. It seems probable, however, that the war has hastened the movement. The effect of a war is, generally speaking, to jar the nation and to lessen the strength which the mere fact of long establishment gives to ideas and institutions. Obstacles are therefore often removed quickly which would otherwise be removed but slowly. It does not follow, of course, that direct operation of industry by the government is desirable. It is highly probable that, at least for a very long time to come the nation will rely mainly on private initiative for successful industry.

§ 2. There are those who see in any increase in the industrial activities of the government a movement in

the direction of socialism. Unfortunately the term "socialism" is not one with a definite clear cut meaning. Under almost any definition, it does indeed imply the direction of industry by the people collectively, and for such direction the government may, of course, be the instrument. Were this all, to call an increase in the industrial activities of the government socialistic would be simply to give it a name. To most of its friends and enemies, however, socialism implies much more than this. It embodies a certain social philosophy and is directed toward a certain goal. So regarded, industrial activity on the part of the government may differ from socialism in spirit, in purpose, and even, to a large extent, in methods.

Socialism, in most of its forms, is primarily concerned with the distribution, rather than with the production, of wealth. Its main object is an economic system in which a larger amount than at present—in fact the entire net product of industry—would go to those whose incomes are dependent on their daily work rather than on the possession of property. No doubt the socialist is interested in a large output; and no doubt he commonly argues that more would be produced under socialism than under the present system. The interest of the socialist in industrial efficiency, however, though not often absent, is generally secondary in importance. His main object is to have industry run exclusively for the benefit of the "working class" and under its control. Governmental activity is rather a means to this end than an end in itself. There was plenty of governmental activity during the war; but it was not directed towards those things in

which the socialist, as such, is primarily interested. There were, of course, many socialists who supported the war heartily, but it was not because of any direct contribution which the war was supposed to make to the advance of socialism. In so far, after the war, as the government participates in industry with a view to making it more efficient, but relies mainly on private enterprise as a means and private interest as a motive, its activity should hardly be called socialistic.

While any extended discussion of socialism would be out of place in this connection, there is one phase of the subject which bears directly on the point here under consideration. This is the doctrine of the class struggle. Many types of socialists, especially those of the Marxian school, hold that society is divided fundamentally into two classes, the exploiters and the exploited. To the latter class belong those who are personally engaged in the work of production, together with those naturally dependent upon them, and whose incomes are primarily payment for labor performed by them. The terms "work" and "labor" are strictly defined, but not so narrowly as to include only manual labor. The other class includes those who derive their incomes chiefly from other sources, especially the possession of property. It is commonly spoken of as the capitalist class, though it includes not only those who provide capital, but the owners of natural resources and most large enterprisers. It is recognized that the enterprisers, in many cases, perform labor of an important sort; and, under most forms of socialism, some provision would be made for them. Logically it would seem that such persons should be paid wages

rather than allowed to receive profits. Some socialists, however, would allow the retention of profits by many small enterprisers, on the ground that such profits do not amount to more than "wages of management" and the interests of such enterprisers are, in the main, the same as the interests of those whose incomes take the form of wages. Between the two classes there is supposed to be a fundamental diversity of interest, which can be terminated only by the triumph of the proletariat and the control of industry by them and for their own benefit.

While there are comparatively few, aside from the socialists, who hold to the doctrine of the class struggle in an unqualified form, there are many who are much under the influence of its spirit. Society, and especially those who take part in industry, are thought of as divided into a number of classes, the prosperity of any one of which, when not obtained at the expense of the others, is a matter of comparative indifference to them. This is strikingly exhibited in the attitude commonly adopted towards the great corporations. Failure on their part to make a reasonable profit is frequently thought of as a matter of but little importance to the rest of the public, but excessive profits are regarded as calling for prompt action. Laborers often feel that the losses of those in control of industry do not concern them as long as wages or working conditions are not directly affected. In the same way, many of those who are in charge of business organizations take a similar view as to the prosperity of the laborers. Certainly a strong class consciousness exists in many who cannot properly be regarded as socialists.

The error most commonly made by those who emphasize the idea of the class struggle, whether in a definite or a vague form, lies not in a belief in the existence of social classes, but in a failure to recognize the social functions which each class has to perform. That there are social classes and that their interests are, at least to some extent, opposed cannot well be denied;[1] but it should be recognized that the special interest of a class is also, at least in many cases, a genuine social interest, of which the class may properly be regarded as the representative and advocate. The personal interests of men are largely bound up with the social functions that the classes to which they belong have to perform. Partly because individual interests are not identical with those of the class, and still more because the social interest which each class represents is not the only social interest, laws and other forms of social control are needed.

The significance of the fact that social classes exist should not be exaggerated. While there are many men in each class who are distinctly "class conscious" there are many who are not. Class lines cannot always be sharply drawn, and even when they can the interest of the individual is likely to differ in many ways from that of the class to which he belongs. If, as is here contended, many of the existing classes have particular social functions to perform, the complete dominance of any one would not necessarily prove, in the long run, to be in its own interest. This many men recog-

[1] It does not, of course, follow that those socialists are right who hold that there are but two classes, and that one of these may properly be regarded as the exploiting and the other as the exploited class.

nize. Finally, it must not be assumed that all men are entirely selfish.

There are doubtless some cases in which a class can exercise power and influence when it has no real service to render. This is likely to be true when its position has been secured by conquest and is maintained by outward force. Again, it sometimes happens that a class has attained a high position by reason of the service it has rendered, but has ceased to be of importance because its work is done. Under such circumstances the class may seek to retain its power and dignity; and its strategic position may make it hard to dislodge. Under democratic conditions, however, it is likely in a short time to become, at most, of little significance.

§ 3. As an illustration of the way in which great influence or actual control on the part of one class really serves the interest of society at large it will be well to consider first a case that lies outside the realm of industry. He who sees in the warlike organization of society in the middle ages only the dominance of the military class and the exploitation of the weak by the strong does not clearly appreciate the nature of social evolution. It is true that society was mainly in the hands of the military class. It is true that the power and influence of this class showed itself in the government, in the habits and customs of the people, and that it had an important effect on religion. It is true that there was exploitation and oppression. It is also true that all this was largely due to the pursuit by the military class of its own interest. It is only when the question of what was the interest of that

class, as a class, is considered that its evolutionary significance can be understood.

The function of the military régime was primarily the establishment of the state and the maintenance of law and order. On the accomplishment of this end the development of industry is largely dependent. The kings of the earth doubtless sought their own happiness, but it is notable that they seemed to find it chiefly in the greatness of their kingdoms. From the point of view of the twentieth century their idea of greatness may not have been the highest possible; but it at least included the idea of peace at home, and the extension of organized and unified government over as large an area as possible. The social ideals of the time largely favored the military class; but it was not by making it possible for the great mass of its members to live lives of luxury and ease. On the contrary it imposed on them lives of strenuous activity and hardship. The general glorification of the military virtues was not merely the acceptance of an ethical code which the dominant class imposed upon society. It was the idealization of qualities which, under the conditions of the time, were necessary for the advance of civilization.

There is, of course, one important sense in which it is very doubtful whether the need for military strength can ever cease to exist. Even within the state law and order can be a reality only when it is known that, if necessary, they can and will be enforced. In the last analysis, the state depends upon force. When, however, the great mass of the people realize the necessity of the state and are willing to make great

sacrifices to uphold it, the military class, for domestic purposes, so far as it maintains a separate existence, becomes little more than a police. Only in a very narrowly limited sense, however, can a police, under such conditions, be regarded as constituting a military class. It is simply an agent of the people at large. Upon the latter rests most of the responsibility for what is done.

Putting it paradoxically: the great mass of the citizens becomes merged in the military class; and in proportion as it advances towards the inclusion of all it weakens and finally ceases to exist. Justice is, of course, a matter of prime importance in bringing this about, for it is only when the people feel that justice can better be secured through the state than without it that they will uphold the state. There is today, of course, no state in which perfect justice prevails; but it is probably safe to say that in most of the modern nations of the western world the vast majority of the people feel that it is through the state itself that improvement must be secured. Under any conditions there will probably continue to exist a minority against whom law enforcement is necessary; and so long as this is so a complete merging of the people and of the military class is impossible. Nevertheless, it is not far from the truth to say that as far as the domestic affairs of most of the great modern nations are concerned the work of the military class, as a class, is done. Changing conditions may, of course, give it new work to do; but at the present time it can be of but little service.

Among the great nations of today militarism has

to do with international more largely than with national affairs. There are few, if any, independent nations so small or so weak as to be without a class that wishes to see national power and influence extended by military methods; though in some nations this class is of minor importance. Things are at present in a condition of uncertainty, but among the nations there have heretofore been no standards of right of justice that it was recognized the nations would really enforce unless their own interests were directly concerned. This does not mean, of course, that each nation was without standards of its own which would influence even its foreign relations. Practically all nations had such standards and in some cases they were fairly high. Neither does it mean that each nation was totally indifferent to the public opinion of the world. Moreover, it was generally recognized that the interests of the nations were so interwoven that a war, once started, might easily spread and eventually prove very costly to the nation responsible for it. Nevertheless conflicts of interest were, and are, pretty sure to arise, and in the main each nation must be the judge of its own cause.

The Great War has done much to bring the peoples of the world to a realization of the importance of maintaining international law and order. It is difficult to see, however, how these can be maintained unless force lies back of them. This, in a sense, means militarism; but again there arises the paradox that if the military interest is generally recognized and provided for, militarism, as now understood, will disappear. This does not necessarily imply a world

government of a sort that would seriously interfere with the independence of the nations. In fact, one of its great objects might well be to maintain that independence. Many matters of common interest, however, would be settled in common; and in a sense independence would be limited. That, however, is true of any treaty, nay of any understanding, between the nations, assuming only good faith in the performance of obligations. It should, of course, be recognized that international harmony cannot be secured without international justice; and, upon the whole, international anarchy may be preferable to international agreement that is essentially unjust.

§ 4. In considering the functions of social classes and the extent to which each class represents a social interest attention should not, of course, be confined to such broad distinctions as that between the military and the industrial classes. The problem here under consideration lies mainly in industry. Within this field, as presumably within others, there are a number of classes, each of which represents a social, as well as a class, interest. As typical of these may be taken the four based on the factors of production recognized by the economists. The socialists would group three of these together as the bourgeoisie. Each, however, represents a social interest of sufficient importance to warrant separate classification. Moreover their special interests are not the same, and at times the difference between them have been conspicuous. A contest between the landed and the capitalist classes, for example, both of them containing enterprisers, has played an important part in the history of England

and of some other countries. Each of the four classes has within it a number of groups which might themselves be regarded as classes, and a detailed consideration of these would be necessary for a full discussion of the subject. For present purposes, however, only the four main classes need be considered.

The characteristic function of the enterpriser, as has already been pointed out, is to determine for what purposes and in what way labor, capital, and natural resources shall be utilized. That a social function is here involved few, of course, would deny. There are two questions, however, that are fundamental. The first of these is how far the interests of the enterprisers, as a class, are or can be bound up with the interest of society. That they should prove to be identical is hardly to be expected; but it is quite possible that they can be brought into closer harmony than now exists and this should be done, so far as practicable, before passing judgment on the system. The second question is how far the social interest involved is a special interest, in the sense that it needs a special set of persons as its advocates. It might be of this character either because there was no strong realization of its importance, or because it was not entirely in harmony with other important social interests and some sort of compromise was necessary.

Service to society is not, as a rule, the principal motive for any class of producers. There are individuals, of course, who are greatly influenced by it; and in this respect the enterpriser is by no means an exception. His chief motive, however, is ordinarily to secure profits. It is true that in many cases the

desire to secure a position of power and influence is of more direct importance; but even then profits are usually the trophies of success and the means of securing further advancement. Subject, however, to some important qualifications, profits are to be made by bringing about the production of the things most wanted and by the most efficient methods. It is largely as a result of the quest for profits that most of the great improvements in production in the last few centuries have been brought about. The enterpriser is constantly seeking the means of improving the quantity and quality of his products without a corresponding increase in expense, better markets both for buying and selling, and more effective methods, equipment, and organization. Where competition exists each enterpriser must offer his goods and services on terms that appeal more strongly to the buyer than do those offered by his competitors, and in buying he must offer terms that appeal more strongly to the sellers.

As has just been pointed out the statement that profits depend on social service is subject to important qualifications. Most of these are due to the rather narrow field to which the enterpriser's interests are restricted. He is not primarily concerned, for example, with the social utility of his products. Within broad limits the consumer spends his income as he sees fit. The enterpriser judges the need for particular goods and services chiefly by the demands of the market; though it is only fair to notice that there are some industries which few able men will enter unless the inducements are extraordinarily great. Again, the enterpriser is not, as a rule, directly concerned with

the question of whether or not wages are as high as they ought to be. Generally speaking, he pays about the market rate; and frequently he does not pay as much as in his own interest he should. Moreover the enterpriser is usually more interested in the superiority of his own concern over those of his competitors than in efficiency in any absolute sense. Consequently there is a strong tendency for any business concern to confine to itself, so far as practicable, any advantages that it may be able to secure.

There are, of course, some respects in which there is a conflict of interest among the enterprisers themselves, and between the enterprisers as a class and the other members of society. The existence of competition is itself evidence of a conflict of interest between competitors; for it shows that each of them is striving to secure for himself something of which there is not enough to satisfy all. The competitive struggle may be costly, not only for those who participate in it, but for the rest of society as well. A certain amount of regulation, either from the inside or from the outside, is desirable in nearly all cases; and in some this may go so far as to amount to a practical suppression of competition between business concerns. Even if the conflict of interest between enterprisers is terminated, however, that between the enterprisers and the other members of society remains; for unregulated monopoly usually means a benefit to the monopolist at the expense of those with whom he deals.

Generally speaking, the interest of the enterprisers is opposed to anything that seems likely to limit their profits or to hamper them in making such use of the

means of production as seems to them to be the best. Sometimes their interest in the matter is not at one with the larger social interest; but in many instances it is. The demands of organized labor may be taken as an illustration. These are commonly of a sort that seems to involve an increase in expense or a reduction of output. In some cases the granting of the demands would be disastrous to industry, resulting in the closing of plants and a discouragement to further development. In resisting the demands of labor the employer may, of course, be mistaken as to his own interests; just as, in other cases, the employees may be mistaken in making them. In many cases the employer may be at least partially right. The important point is that each side of the question receives consideration. The enterpriser is an advocate and should not be thought of as an impartial judge. The same, however, is true of those who represent labor. The strike or the lockout is, of course, an exceedingly crude and costly way of settlement, and the outcome is by no means certain to be fair, though it is generally much influenced by the merits of the parties. Arbitration, or judicial settlement, if honestly and intelligently administered, is likely to be less costly and fairer; but there are some fundamental principles involved on which there is no general agreement, and it is difficult to secure arbiters or judges in whose impartiality and ability both parties will have sufficient confidence. The fact, however, that no satisfactory means of settlement has been developed, should not be allowed to obscure the fact that there is a real issue, in both sides of which society at large has an important interest.

It is clear that, under present conditions, the enterprisers as a class represent a special social interest. It is equally clear that conflicts may, and sometimes do, arise between this and other social interests. It may, perhaps, be contended that under a different organization of society all causes of conflict would be removed. That, however, is possible only when the interests which the enterprisers represent are recognized and given full weight. Whether or not this is possible can best be considered after attention has been given to the other social classes and the interests which they represent. Here it should be noticed that the extent to which the interests of the enterprisers differ from those of society at large should not be exaggerated. The significant thing is that they are specialists, and they have the faults that are commonly found in specialists.

§ 5. The function of the capitalist is to provide the material means, other than natural resources, on which the successful conduct of industry depends. The capitalist may be said to advance payment to those who are unable or unwilling to wait for it, for he surrenders the present control of wealth in return for a claim upon the future. That a social interest is involved is as unquestionable as it is in the case of enterprise; and the fundamental questions as to the necessity and desirability of a separate class are much the same. That such a class exists is hardly open to question though there is much overlapping between it and the others. Nearly every enterpriser is to some extent a capitalist, though there are many who borrow much of the capital they use. There are a large number of capitalists,

however, who are enterprisers only so far as is implied by the fact that they select their investments. Every laboring man who has made investments in securities, insurance, or savings bank deposits has some interest as a capitalist, though this is usually small compared with his interest as a laborer. The same man may be both capitalist and landlord, yet the functions of the two factors in production are fairly distinct, and there are substantial differences that arise in the problems that they present.

The accumulation and maintenance of capital imply saving; and to most men the present looms larger than the future. There are, of course, many whose incomes are so small that very little saving on their part is practicable; but the number who receive substantial incomes from which they save practically nothing is very large. The capitalists are men selected by the existing order for their ability and willingness to save, and thus to provide one of the means for increasing production. There are, of course, some men whose incomes are so large that saving means little or no hardship to them; but the service to society is none the less on that account. There are many real evils connected with the unequal distribution of wealth and income that now exists, but the fact that wealth tends to accumulate in the hands of those who convert it into capital is not one of them; for this means that those who use wealth for the good of society secure thereby the means for rendering greater service.

The capitalist is interested not only in the accumulation of capital, but in the maintenance intact of the fund of capital that has already been accumulated.

Caution is one of his leading characteristics; and as far as he knows and is able to follow his own interest, any proposition in which he is asked to invest is examined carefully before being accepted. Unless it appears to be sound from a business point of view and the men in charge of it of a sort in whom confidence can be placed it will be rejected. It is true that there are many investors who cannot make the necessary examination personally, but the capitalist can usually make use of the services of experts, of whom the investment bankers are a good example. The savings bank is an instrumentality by which work of this sort is done for the small investor. The enterpriser, who has usually secondary interests as a capitalist, is not, of course, indifferent to losses, but he is willing to put a chance for large gains against the chance for loss. The amount of capital which the enterprisers could provide is not, however, sufficient for the needs of modern industry; but the corporation, with its stocks and bonds, furnishes a means by which the services of capitalists and enterprisers can be united. The enterpriser and the capitalist have each a point of view that is very desirable for successful industry; and each, to some extent, tends to correct the faults of the other.

In what has been said so far attention has been centered on the services which the capitalists as a class perform for society, and on the way in which their interests and those of society are the same. It should now be noticed that there are some ways in which a conflict of interest can arise. Just as the enterpriser it not ordinarily concerned in any direct way with the social utility of his product, so the capitalist is not,

within broad limits, concerned as to the way in which his capital is used, provided only there is adequate security for principal and income. The loan that he makes may not go into industry at all; or, going into it, may be put to a use that hurts rather than helps. The most important investments, outside of industry, however, are government securities, including, of course, those issued by political subdivisions. The capitalist may, in a consciously or unconsciously selfish way, use his influence in favor of unwise borrowing. Even so, a large part of the responsibility for unwise loans should be placed on the borrower; though the fact that there is a conflict remains. As regards industrial loans the capitalist will generally, in his own interest, look carefully into the purpose for which a loan is sought. If it is not for a really productive purpose the security is likely to be weak, and this means a considerable disadvantage to the borrower. An industry may, of course, be a sound one from a business point of view, yet socially undesirable. In this case the problem is one of enterprise rather than of capital, and if any regulation is needed it should be applied to enterprise.

A more serious conflict sometimes arises when the capitalists seek public protection for investments when such protection means a considerable burden for the people as a whole. Cases of this sort are often international in character. In many, even of these, a substantial public interest is involved, though it does not follow, of course, that public support should be given under all circumstances and at all hazards. Similar problems may arise in purely domestic affairs. The

capitalists, as a class, are, as a rule, distinctly conservative. In some cases their interest is bound up with what have come to be regarded as evils. They have, for example, on more than one occasion, opposed changes that were greatly beneficial to the laborers, and through them to society. Not all the changes that are advocated, however, even when they appear to be beneficial to the great mass of the people, would really prove so in the long run. In some cases they are distinctly bad in character. In others they would prove to be excessively costly, even from a national point of view. In still others serious defects can be removed and the proposed plans improved in various ways after due consideration has been given to all the interests involved. Excessive conservatism is, no doubt, an evil; but the same is true of excessive radicalism.

The capitalists, like the members of the other classes, are specialists; and besides having the individual selfishness that is common to all men, have the narrowness of vision that is usually found in specialists. Complete control by them would be unfortunate, if not disastrous; but so would be the ignoring of the interest which they represent. As in the case of the enterprisers, the need of such a class can best be considered after attention has been given to the other interests involved. It may be noticed here, however, that the capitalists and the enterprisers represent two distinct views, both of which are important. The capitalists stand for safety and the protection of the gains that have already been made. The enterprisers stand for progress along certain definite lines. Some sort of a balance between the two is highly desirable.

§ 6. The owners of natural resources have an interest in their effective utilization, for it is this that determines the amount of the periodic return. They have also an interest in such utilization as will not exhaust or destroy, for it is upon this that the permanency of the income depends. There are, indeed, cases in which the two interests may be seriously in conflict; and it may be necessary for the state to step in and assume control in order that one of them—usually permanence—shall receive proper consideration. Cases of this sort may arise where the conservative policy is one that must take into account a considerable period of time, whereas human life, even at the best, is short. Such considerations might be found to justify, for example, a policy of state ownership of forests. They do not, however, show the desirability of a general policy of state ownership of natural resources. In the same way, special circumstances may justify the state in assuming the responsibility for the coinage of money, but it does not follow that government ownership and operation in all branches of manufacturing industry is desirable.

There are a considerable number of persons who are not socialists, but who, under the form of the "single tax," would practically do away with private property in natural resources, or, more specifically, in land.[2] In view of the advocates of the genuine single

[2] Some advocates of the "single tax" insist strongly that legal titles would not be affected; but whether or not the form of private property in land would be destroyed, the substance certainly would be. The "owner" would, for all practical purposes, be in the position of a tenant with a perpetual lease containing a clause for the frequent readjustment of the rent. The insignificance of titles under the circumstances is clearly recognized by

tax, the owners of land perform no important functions that could not as well be performed under government ownership. Some of them indeed, including Henry George himself,[8] would allow the holders of the title a small percentage of the rent to save the government the expense of an elaborate land office and to avoid other difficulties connected with administration. This, of course, involves some recognition of the fact that even in the case of land, as distinguished from improvements, the gross rental is not clear gain. As a concession to the opponents of the single tax, however, it is of but little importance. The fundamental idea is that by far the larger part of the rent is in no sense earned. Partly on this account it is argued that the people as a whole, through the state, should receive the economic rent. That it would be theoretically possible for the state, to perform in some manner the functions of a land owner, through a proper land office, through commissioned agents, or through some combination of the two, there can be little doubt. A vital consideration is whether, in practice, this would be done with a due regard for effective use and conservation. This is, of course, entirely aside from the question of justice which a policy of confiscation would imply; and of whether, in such a case as this an unjust policy would prove to be a wise one.

There are, of course, many aspects of the "single tax" and of similar proposals that need not be considered in this connection. A point which should re-

Henry George, when he says: "We may safely leave them the shell, if we take the kernel." "Progress and Poverty," Bk. VIII., Ch. II., edition of 1900, p. 403.

[8] *Ibid.*

ceive attention, however, is the fact that profits frequently appear in the form of rent; and the same is true, though perhaps less frequently, of other shares in distribution. The American farmers who have opened great sections of the country have been much influenced by the hope that there would be a great increase in land values. The rise, when it came, was due not merely to the improvement of particular farms, but to the fact that the settlement of the district meant a great increase in population. The income received from oil wells, mines, and water powers must be attributed very largely to the land itself, but it is the possibility of this income, or its capitalized value, that leads to the search for and the development of such resources. Even in a city the land owners have a motive for making the place attractive to increased industry and population. The fact that land is often rented, rather than owned, by those who do most for its development is not conclusive, even as far as the particular properties are concerned; for the land is commonly held under lease, and the leasehold itself may be very valuable. Even where the government retains title to natural resources the terms on which they are turned over to individuals or corporations may well contain provisions by which the latter receive at least a part of the economic rent. That there is such a thing as the "unearned increment," however, and that this may properly be taken into account in fixing the terms, or in connection with a tax policy, need not, of course, be denied.

The confusion which sometimes exists between rent and profits serves but to emphasize the fact, already

mentioned, that the industrial classes are not separated from each other by rigid lines. A similar confusion sometimes exists between rent and interest. Not only may the capitalist become an owner of natural resources, but there are many types of improvements which imply the original investment of capital, though eventually they become so merged with the land as to be indistinguishable from it. Even the remuneration of labor may be confused with the rent of land. It is commonly so in the case of the farmer, who contributes labor, as well as enterprise and capital, to the development of his farm. Indeed, it may be doubted whether there are many persons, at least in America, who are large owners of natural resources and at the same time interested only in a minor way in the other factors of production. There are, however, a considerable number who have important interests in the ownership of natural resources, and for some purposes may be regarded as a land owning class.

§ 7. The characteristic function of the laborer is to perform the direct, personal work of production along lines that have already been determined for him. The contributions of the capitalist and of the owner of natural resources to production, however important they may be, are indirect and impersonal. The enterpriser determines the lines along which production shall take place or, in other words, the industrial policies that shall be pursued; but as enterpriser he has little to do with the carrying out of those policies. In practical industrial life the line between the enterpriser and the laborer is probably less clear than is the line between any other two factors of production, largely

because those who share, in any great degree, in the determination of industrial policies commonly share, in an unmistakable way, in their execution. Notwithstanding this lack of any sharp line of demarcation there is little difficulty in classifying the great majority of those who take part in industry as primarily laborers.

That labor is essential to production and that a social interest is therefore involved is obvious. Indeed, it stands out so clearly that the importance of the other factors is frequently overlooked by those whose sympathies are largely with the laboring class. Many of those who, at least after a moment's consideration, would admit that labor is not the sole producer of wealth, sometimes appear to take it for granted that it is; and statements to the effect that labor should receive a larger share of the "wealth that it produces" are not uncommon. As arguments such statements beg the question; for it is usually implied that, subject to exceptions that are of little importance in this connection, wealth should go to its producers. At the same time, it should be recognized that the laboring class includes by far the greater part of the population and potentially includes an even larger part. The welfare of the laborers unquestionably is a very important element in the welfare of the nation.

The typical laborer, like others who take part in industry, is actuated not so much by the desire to render service to society as by what he can get out of it for himself. Generally speaking, wages furnish the chief incentive; though there is much work done under the influence of other motives. The laborer,

however, is more interested than are most of the other producers in the conditions under which the work is done, for his connection with it is more personal than is theirs. In so far as high wages and favorable working conditions are seen to be dependent on his qualities as a laborer he has a strong motive for rendering the best service possible. Unfortunately this relation is not as close as it might be, and often it does not seem to be as close as it is. Moreover, the psychological influence of working conditions reacts powerfully on the laborer; and in many cases it is unfavorable to the development of efficiency on his part.

There are a number of economists who hold that the normal tendency of the existing industrial system is to make the wages of the laborer depend directly on his contribution to production. In the opinion of the present writer this theory is entirely correct, so far as it goes, and is the most fundamental theory of wages that has been advanced. It must be remembered, however, that the contribution of the laborer to production—in other words his marginal productivity—is partly dependent on the other factors of production; and even so the theory is incomplete. In real life the competitive forces do not act freely; and this not only obscures the relation between service and its reward, but makes it less close than it would otherwise be. That relation, however, is far from being entirely destroyed. The laborer who does his work well is worth more than the laborer who does his work poorly and, generally speaking, he will get more. Even if there is a current rate of wages which both receive the better laborer will generally have more chance to choose

his job and will hold it more securely. It is quite possible that, upon the whole and in the long run, the wages of the average laborer do approximate his contribution to production. The relation, however, is so obscure and so modified by special conditions as to lose much of its power as a motive for the best work on the part of the individual laborer.

The relation between service and pay can doubtless be made much closer than it is. More than this, however, is necessary if the social interest and the interest of the laborer as he sees it are to be brought as nearly as possible into harmony. The laborer must feel that he has the opportunity for self-development and for rendering the highest paid, or otherwise most attractive, service for which he is fitted. Generally speaking, there is not much opposition to the selective principle that he who sows should also reap, though there are few who would wish to see it applied without some minor qualifications. There is, however, a feeling on the part of a very considerable number of men that many have no fair chance to sow, and that others reap not only that which grows of itself but that which some one else has sown. This feeling rests partly on the mistaken, and often unconsidered, idea that labor is the sole producer of wealth and partly on real evils that exist under present conditions. The removal of these evils is one of the chief problems of efficiency.

Recent years have seen the passage of much legislation designed to serve directly the interest of the laboring class. As such must be regarded the laws providing for industrial insurance, minimum wage laws, limitations on the length of the working day, and

a number of others. While laws of this sort are commonly—and often properly—defended in the social interest, they could hardly have been passed had it not been believed that they had back of them a large measure of labor support. In other words, there was a group of persons who acted as an advocate for them. Laws of this sort are not necessarily regarded by impartial people as class legislation of an objectionable kind; and in many cases they have been upheld by courts that could not well be regarded as afraid of labor or unduly favorable to it.

There can be no doubt that the interest of labor, at least as labor sees it, is sometimes opposed to the general social interest. That wages, were there no resistance to the demands of labor, would probably be fixed so high as to seriously handicap industry has already been mentioned. There is reason for thinking that in certain lines of industry, in which organized labor is strong and the conditions have been specially favorable to it, wages have been fixed at a point so high that the payment of all laborers of equal quality in the same proportion would be impossible. Such wages really include an element of monopoly return, or something similar to it, and it is safe to say that their payment is partly at the expense of other laborers. For labor as a whole it is idle to insist on a "living wage" that would greatly exceed the contribution of the laborer to production. To a certain extent the other factors of production can be compelled to make up a deficit, but the extent to which this is possible is narrowly limited. Each of the factors of production needs an advocate of its interest if the welfare of the

nation, including that of the laborers themselves, is to be secured.

Again, labor has often resisted the introduction of labor saving machinery. Obviously this has important features unfavorable to efficiency. It should be noticed, however, that at least in the short run, labor may be injured by such improvements. They are frequently made at the cost of considerable hardship for particular laborers; and it is these who are likely to be most active in their opposition. As a result of the injury to some laborers the laboring class, considered as a unit, may suffer at the time, and if it gains in the long run it may be simply because it shares in the general social benefit. It must, of course, be admitted that it would be very unfortunate if a permanent improvement were prevented because of the temporary cost; but some delay may be really favorable to efficiency. The cost of introducing the improvement is a real one and is often serious. A compromise between opposing parties may serve the social interest better than would the complete success of either of them.

§ 8. It does not necessarily follow from what has been said that each of the present industrial classes must be permanent. Each of them, notwithstanding some faults, is justified under existing conditions by the fact that its interest is bound up with a highly important social interest that is so lacking in general recognition as to need a special advocate. That separate classes are not permanently necessary is suggested by the fact, already emphasized, that the lines between them are not sharply drawn. There are many whose

special interests are not confined to those of any one class and many others who realize that the special interests of the different classes are not wholly independent of each other. Such persons perform their industrial functions no less effectively than those whose own interests are more restricted or whose point of view is narrower. Indeed, there can be no doubt that in many cases they perform those functions better.

It should be recognized, however, that the passing of any industrial class without serious injury to society must be the result, not of destruction, but of merger. If the capitalist class, for example, is to disappear without great loss to society the social interest that it represents must be taken over by the other members of society. This means that, at least in any democratic nation, the great mass of the people must, in effect, become capitalists. It is not implied, of course, that they must cease to have other industrial functions, that each must possess a considerable amount of capital, or even that capital must be individually owned. The people must, however, have the willingness to save some of the wealth which they have the power to spend for direct satisfactions and put their saving to industrial uses. Complete control of industry by those who have not this attitude must, save possibly under highly abnormal conditions, result in disaster. Probably few, even of the most conservative, of the present capitalist class would object to a large degree of control of industries by laborers were this to come about through the widespread development of the spirit of saving and the entrance into the investment field of

nearly all of the people. If this went far enough, however, the work of the capitalist class, as a class, would be done. There might still be some who are dependent mainly on capital for their incomes and some who were dependent chiefly or wholly on their daily labor. The capitalistic needs of society, however, would be generally recognized, and partly because of this it would be relatively easy to deal with the purely selfish demands of any particular group of capitalists.

The essence of the socialistic program is the collective ownership and control of the means of production. Interest, rent, and profits would no longer be sources of private income. The community as a whole would be capitalist, owner of natural resources, and enterpriser. Such a system would have the advantage of bringing into service as laborers many who have great ability to act in that capacity but who now do so to a slight extent only, if at all. It would have the advantage of eliminating some of the costs of competition, though it would also, in all probability, eliminate many of the benefits as well. Such a system would in many respects resemble producers' coöperation on a greatly magnified scale. Unless socialism were to greatly change the industrial attitude of the great mass of the people it would have the weaknesses found in producers' coöperation. The people would have to decide collectively what should be done and, in so far as they did not themselves pass upon details they would have to select those who did and delegate power to them. In either case the least successful and those who had the least of the spirit of enter-

prise would presumably[4] have as much voice in the matter as those who were most successful and those in whom the spirit of enterprise was strongest. Capital would have to be raised by taxation, or something similar to it; and this would be subject to the approval of men a large proportion of whom save very little. The large incomes that some persons now receive suggest a possible source of saving; but in a very large measure they are now being saved and invested. So far as they are, the most that socialism could do would be to change the title to them and the particular purpose of their investment. Society in its collective capacity would have to decide to what use natural resources could best be put and this without the test of a competitive determination of the rent. So far as the functions of capitalist and enterpriser were already undertaken by society the fact that interest and profits are often paid in the form of rent would, of course, cause no additional difficulty.

There have, indeed, been a number of cases of successful government enterprise, though it is not clear how far these are efficient as compared with private enterprises of a similar character. It is probably true that they show no marked superiority in this respect. In regard to such enterprises, moreover, there are several important facts that should be noticed. In the first place, they are commonly in industries in

[4] Collective ownership does not necessarily imply democratic control; but one of the chief arguments for modern socialism is that it would be a means of securing industrial democracy. Russian communism which, according to its proponents, involves the control of production in the interest of the great mass of the people, is far from being democratic.

which the special importance of service is generally recognized, and it is largely for this reason that the government has undertaken them. In the second place, in a large proportion of such cases the necessary capital has been secured through the sale of bonds, reliance still being placed on the private capitalist. In the third place, the industries concerned are usually those in which regulation is at once most needed and most difficult to make effective. Finally, they are conducted under a régime in which private industry is the rule. Frequently public industries have been in competition with private ones; and this has greatly influenced the way in which they have been conducted. Upon the whole those socialists seem to have the right idea who say that government ownership and operation, under present conditions, represents not state socialism, but state capitalism.

The present industrial system has many real defects and much improvement is possible. Nevertheless, there is a fundamental tendency to put wealth and power in the hands of those who will use them for productive purposes. The very fact that socialism is urged in the interest of the laboring class very strongly suggests that there are interests represented by the other classes which are not recognized. Should the time ever come when the great mass of the people fully appreciate the importance of the functions of enterprisers, capitalists, and the owners of natural resources, and are prepared to perform those functions well, the need for special classes to represent them will disappear. This would not, however, mean the triumph of the proletariat over the "classes," but the merging of the proletariat in the

"classes." The situation might be expressed by a paradox very similar to that noticed in connection with the military class. The industrial classes would disappear to the extent to which they came to include the great mass of the people. Such a situation might arise gradually through coöperation, through regulation, through government ownership, or perhaps in some other way. If the time were ripe for it it might possibly come through revolution, though the cost would be very great. Moreover this is not the natural way where there is no serious obstacle in the way of the gradual methods. That revolution could itself develop the sentiments on which a successful system of socialism must rest is highly doubtful.

§ 9. As has already been strongly emphasized, there are many individuals who share, in an important way, in the interests of more than one class. These may be divided into two main groups: those that are concerned with small scale production and those that are concerned with large. Since the general tendency of modern industry is from small to large scale production it is probable that the first of these two groups is diminishing in importance. The rapidity of the diminution, however, must not be exaggerated. The tendency towards large scale production is not equally strong in all branches of industry. Farming, for example, is still one of small scale production and it is likely to remain so for a long time to come, especially if certain types of combination which leave the farmer a large measure of independence are successful. Large scale production, with the specialization it involves, is in some respects unfavorable to the merging of the

different factors of production in one individual. There are many persons, however, who share in the interest of more than one class. This is strikingly true in the case of many of the officials. Not only may they also be stockholders and in that capacity enterprisers, but much of the work of the enterprisers is often delegated to them, and they are constantly in touch with the problems with which the enterprisers are confronted. Under certain circumstances the difficulties of large business organizations in rendering adequate service help to educate the people at large as to the necessity of recognizing the various industrial interests involved, for the failure of a large industrial concern has a direct and easily perceived effect on the public welfare. Some measure of such recognition is, for example, embodied in the Transportation Act of 1920. Finally, the corporation, which is the chief form of organization for large scale production, is potentially at least a very democratic organization and does much to make possible a wide distribution of ownership.

The merging of the four factors of production in one individual, as illustrated in the case of the land owning farmer, is highly favorable to industrial efficiency. Such a farmer is an enterpriser. He has an interest in the effective use of the land with due regard for its conservation. Because of his need for capital for the operation of his farm and for improving it, he has a strong motive for saving and investment. As a laborer he will work harder and find more pleasure in his work than he would under other conditions. It does not, of course, follow that his inter-

ests are identical with those of the rest of society. Farming today requires more capital than was once the case, and the farmer must often borrow a considerable amount. In most instances he must hire some labor. Moreover, the farmer is likely to feel that the middleman and the other producers with whom he must deal, especially the railroads and the banks, impose an undue burden upon him. Nevertheless the different interests are better united than they are in most cases.

The land owning farmer, however, is very far from being a type of what all men might be. It is true that in farming, as compared with most other industries, no extraordinary degree of enterprising ability is needed, but some such ability the moderately successful farmer must have. Moreover, under modern conditions, if he is unable or unwilling to work hard and to save something he is not likely to remain for long a land owning farmer. If his holdings be large enough or if he have an income from other sources he may remain a landlord, putting in charge of his farm a man who will make better use of it than he. He is very likely, however, to lose his farm, as has happened to many men, and to become simply a worker for wages.

The American farmer is a picked man. This is obvious in the case of those who went out into a new district to acquire land under the homestead policy. It is hardly less true in other cases. The movement from the farms to the cities is due to many causes. Some of the ablest and strongest men in the cities are the sons of farmers. On the other hand, it is

highly probable that among those who leave the farms are many who have not the qualities that would enable them to become successful farmers. The selective forces could doubtless be made to work more effectively than they do, not only in withdrawing power from those who can not or will not use it well but in giving opportunity to those who would be successful. Merely to guarantee, in some way, the possession of a farm to anyone who wants it would not, however, put all of them in the position of the average American farmer.

In most lines of industry production, to be effective, must be on a scale so large as to make anything analogous to the land owning farmer, quite out of the question. For this reason only a partial ownership, at best, is possible for each worker; and it is probably too much to expect that partial ownership should be as effective as sole ownership. Nevertheless there is no reason to doubt that the ownership of a few bonds or a few shares of stock, has a distinct educational value, and tends to weaken the "class consciousness" of the laborer. It can hardly fail to give him some interest in the welfare of the business as a whole. It is doubtless largely for this reason that many corporations are definitely encouraging the purchase of their securities by their employees and are doing what they can to make it easy for the latter to make such purchases. Apparently the amount of securities that are being sold in this way is large, though it is, of course, but a small percent of the total.

It would seem that the purchase of corporation securities, whether for purposes of investment or of

control, by labor organizations must contribute to a better realization on their part and on that of their members of the social significance of other factors of production than labor. In so far as a labor union accumulates funds and invests them it is a capitalist; and in so far as it secures and exercises a share in the control of an industrial concern it is an enterpriser. The recent organization of banks by labor unions, in various parts of the country, must inevitably, if such banks are to be successful, give those in charge of the unions concerned something of the bankers' point of view. This is true even if these banks were established primarily because it was believed that existing banks were not as friendly as they should be to organized labor.

A very interesting example of the participation of organized labor in enterprise is furnished by the experience of the Philadelphia Rapid Transit Company in the early part of 1922. For many years President Thomas E. Mitten had been endeavoring to secure the coöperation of the employees in making a success of the street railway system of the company. In January he proposed that they be paid a bonus, or "coöperative wage dividend," after six percent dividends had been paid to the stockholders, the amount of the bonus not to exceed ten percent of the payroll.[5] For many years no dividends had been paid on the stock, but Mr. Mitten believed that, partly as a result of the coöperative efforts of the employees, the company was now in a position to pay six per cent dividends. Opposition both to the bonus and the stockholders' divi-

[5] 114 Commercial and Financial Chronicle, p. 522.

dend promptly developed.[6] It is only fair to add that there appeared to be some opposition to the Mitten management on other grounds. It soon became evident that at the next annual meeting, which was to be held in March, there would be a fight for control. The employees' Coöperative Welfare Association sold some $250,000 worth of securities, consisting chiefly if not exclusively of Liberty Bonds, which it held in its treasury, and with the proceeds bought 10,000 shares of the stock of the company. This stock it later voted in support of President Mitten. It was reported that the "Mitten Management" also bought 10,000 shares; and that as a result of these transactions the Mitten Management and the employees' association became the two largest stockholders of record.[7] It seems that the stockholders generally were in sympathy with President Mitten and the employees rather than with the opposition, for when the meeting was held the former party was found to control 520,637 shares out of a total of about 600,000.[8] It is perhaps true that the interest of the employees was largely connected with the prospect of the coöperative wage dividend; but it is no less true that they invested what was for them a large sum of money in the stock of the company. As one of the results of the fight the president of the employees' association became a member of the board of directors. It is worth noticing that the coöperative wage dividend for 1922, amounting

[6] See 114 Commercial and Financial Chronicle, p. 627.

[7] 114 Commercial and Financial Chronicle, p. 739. For facts as to the purchase see also "Service Talks," Philadelphia Rapid Transit Company, No. 32, January 24, 1923, p. 2.

[8] 114 Commercial and Financial Chronicle, p. 1181.

to about $1,650,000 was invested in 55,000 shares of the stock of the company. This stock is held by trustees for the individual employees.[9]

[9] "Service Talks," Philadelphia Rapid Transit Company, No. 32, January 24, 1923, p. 3.

CHAPTER VI

EVOLUTION AND THE SELECTION OF LABOR

§ 1. How to secure efficiency on the part of labor is a subject to which much attention has been given in recent years. Most of the studies that have been made fall into one of two fairly distinct classes, though there are a few that fall on the border line between them. One is distinctly practical in character; the other primarily theoretical. Probably more has so far been accomplished as a result of the first, but the second is full of promise. In the main the two deal with different phases of the subject, and so serve to supplement each other. Neither is complete in itself.

The practical class is concerned primarily with the problem of how those in charge of a business can secure the greatest possible net output from its employees. In other words, the writers look at efficiency from the private, rather than from the national, point of view. They are not necessarily indifferent to the welfare of the workers as men and women. In some cases they are much interested; but the problem with which they are concerned is a distinctly business problem. Among the most important subjects dealt with are the selection and training of employees, the supervision of working processes, the sort of facilities provided, systems of wage payment, and the securing of

a high morale. Writers of this class commonly realize that the interest of a business in its employees does not stop at the factory gate, but that the physical, mental, and moral well-being of the workers outside of the place of their employment has an important bearing on the character of the service they render.

In all this there is much that makes for efficiency in the broadest possible sense; and even from a national point of view, many of the studies that have been made with special reference to the interests of particular industrial concerns are of great significance. The two points of view, however, are not identical; and even if it should appear that there are comparatively few cases in which they are in conflict, the private point of view does not cover the entire field.

The second class of studies is more general in character. It is directly concerned with industrial psychology; and while the desire for efficiency is one of the guiding motives, it is by no means the only one. Writers of this class are often interested primarily in the laborers as men and women, and in some cases seem to think of efficiency as a sort of by-product of more humane conditions. In so far as it is admitted that there are psychological laws that govern human conduct, the industrial importance of a scientific study of those laws becomes obvious. Studies of this class have dealt very largely with human instincts; how they can be stimulated in a manner favorable to industry; and the economic and social consequences of their suppression or misdirection. Some of the writers in this field, though men of scientific training, are not primarily psychologists; and it seems quite possible that

in their enthusiasm for a certain kind of behavioristic psychology they have overestimated the importance of the instincts as compared with other factors. None the less they have made the beginnings of what appears very likely to be an important contribution to the subject.

Writers of the psychological group do not as commonly take the social and industrial order for granted as do those of the practical group. The effect of that order on the workers, and through them on industry, are among the subjects of investigation. Some of the conclusions reached suggest important modifications of it. Others might well be used by a business concern acting in its own interest, and are published with that fact in mind. Generally speaking, however, the chief purpose, so far as it is not knowledge for its own sake, seems to be the welfare of the men and women most directly concerned with industry as laborers. These, of course, make up a large part of the nation; and for this reason efficiency is looked at from a point of view which gives it many national and social aspects.

A comprehensive study of the subject would require careful consideration of what has been accomplished along both lines of investigation. Such a study is here impracticable. There are, however, many phases of the subject to which comparatively little attention has heretofore been given; and it is with a few of these that this chapter and the one immediately following it are primarily concerned.

§ 2. In considering the way in which social improvements of any sort can be brought about the

universal principle of the survival of the fittest should be kept in mind. It is through the working of this principle that the present state of affairs came into being; and it is through the working of the same principle that the future will be developed. As has already been pointed out this does not mean that a policy of laissez-faire should be adopted. The principle is one of which man can make advantageous use, provided only he acts with sufficient intelligence. It is true that the forces of evolution are very powerful, and unwisely handled may lead to disaster; but it must be remembered that they are always at work, whether or not man consciously directs them. They play a part in all attempts at regulation or reform and contribute greatly to their success or failure. The question is not whether they shall act, but in what way man can make use of them.

If the most effective use is to be made of the selective forces there are three main lines along which action must be taken. First, the characteristics that constitute fitness must be determined. In other works, industrial conditions must be so ordered that the characteristics that are desirable from a national point of view will be the ones selected. Second, the powers and capacities that men possess must be developed. It should never be forgotten that natural selection deals only with actualities, not with potentialities. Third, in so far as the characteristics desired depend on the innate qualities of men some means must be found of determining of what sort of men the nation shall be composed. This implies the direct application of what, for want of a better term, may be called, artificial, as

opposed to natural, selection to the people themselves.

It is not only through legislation that action along any of these lines may be taken. Some laws are, indeed, needed, and, of course, the bearing of all laws on the working of the selective forces should be carefully considered. It is only where formal action on the part of the government, whether for regulative or constructive purposes is required that laws can be of much service. Private action is often much more effective for good, and in many cases needs neither governmental regulation nor aid. Public opinion is a force of tremendous power. It lies back of most laws and greatly affects the judgment of the individual as to what his own interest is. In this connection education is of great significance.

The action that society may wisely take to control the selective forces is subject to important limitations. Perhaps the chief of these is that imposed by the lack of knowledge. Especially where any legal action is contemplated the possible effects, indirect as well as direct, of any proposed measure should be examined with the greatest care. Because law is almost necessarily rigid in character and errors are not easily corrected, the burden of proof must ordinarily rest on those who advocate its enactment. Another limitation arises out of the fact that industry is not the sole reason for the existence of society, but is rather a means to an end. Personal liberty, for example, is of great importance; and due consideration for it may be expected to show itself in the methods adopted for securing efficiency.

§ 3. In the absence of regulation the qualities that

constitute fitness are not necessarily those that are most favorable to national efficiency. Of this child labor furnishes a striking illustration. There are few who would argue that child labor, in the long run, makes for the development of efficient labor; yet where it is permitted the employer who is able and willing to make use of it is likely to be the most successful. He is the fittest employer; and under such conditions child labor is often the fittest kind. Where it is prohibited or made costly, whether by law, by the action of organized labor, or in some other way, the effect is to deprive of their advantage those concerns whose ability to produce at a low cost lies in their ability or willingness to make use of child labor, and by reason of that effect to increase the relative fitness of other kinds of labor.

The principles that apply in the case of child labor apply in many others. The employer, so far as he is actuated by business motives will use that type of labor which is, all things considered, the cheapest for him and, within limits, he must be actuated by business motives or suffer elimination as an employer. Labor however, may be cheap though wages are high and other considerable expenses are involved, if the output per worker is large; or it may be cheap though the output per worker is small because wages and other expenses are low. In most, if not in all, industries in which conditions have not been made uniform by combination or as a result of conditions imposed by organized labor there are some differences between employers in this matter. To a certain extent inherently different grades of labor may be employed; but this is far from being true as a general proposition

A large output per worker may be due to the fact that the work is better organized and directed. It may be due to a better quality of work, but this, in turn, is partly dependent on the conditions of work. Low wages, long hours, and bad working conditions are not favorable to the development of personal efficiency.

Regulations that place any effective limits on the ability of employers to secure labor at low wages naturally lead to a greater emphasis on quality. Employers who cannot make effective use of well paid labor are placed at a disadvantage. For the laborer the ability and willingness to do good work become of more importance than before as an element in fitness. He has therefore an increased motive for the development of his own capacities. Of course this is not itself sufficient to secure the best results. Opportunities for self-development must be made available. The way in which this can be done will be separately considered. Here it is sufficient to notice that the need for a high quality of labor gives the employer, the employee, and society at large an increased motive for taking action to secure it. It is of course true that in so far as laborers whose services are worth relatively little are inherently incapable of better things, conditions that make necessary a high quality of labor make more serious the problem of using the inferior. If it should appear that a large part of the laborers are of this sort a serious obstacle in the way of improvement will be discovered. Doubtless there are many whose powers, however great they have been originally have been so far developed under existing

conditions that little advance on their part is now possible. This is unquestionably a condition which will make improvement slower than would otherwise be necessary. Upon the whole it seems improbable that the great mass of low grade labor in America is incapable of further development; and it must be remembered that low wages, long hours, and bad working conditions are themselves circumstances that make development difficult.

It is doubtless true that even under existing conditions many of the most successful business concerns find it a good policy to make use of a high grade of labor, even when a lower grade can be obtained at a much lower expense. It may be thought that many of the rest will be compelled by competition to follow their example. In some cases this is what happens, and social action is of value chiefly in hastening a process that would take place in any event. It must be remembered, however, that even when the policy of employing a low grade of labor is not the best from the business point of view, and many, if not all, of those who try it are eliminated by competition, it frequently happens that others of the same sort are constantly entering the field. Moreover, even if elimination takes place, it takes place after, and not before, much harm has been done. In cases where the advantage of using a high grade of labor is about balanced by the expense, the individual employer has no strong business motive for adopting such a policy, even though it would be decidedly good from the point of view of the laboring class and of the nation. Though some employers may follow the better policy, competition

puts little pressure on the others to do likewise. In such cases social action that turns the balance in favor of the former may be highly desirable.

There are, of course, important limits within which regulations of the sort here under consideration are either practicable or desirable. Carried too far they will result in diminished production for industry as a whole; and this means that there will be less wealth available for distribution, and a more serious problem of unemployment. It is true that if the demand for the product of a particular industry is highly inelastic a considerable increase in the expense for labor will not necessarily cause much increase in unemployment in that industry; but the higher prices will have an adverse effect on the consumers, and, generally speaking, it is in the case of those industries in which the demand for the product is inelastic that the consumers are largely persons of modest means. If the evils of an increase in the expense of labor are to be avoided, the effectiveness of labor must be increased in a corresponding degree. It should be noticed, however, that regulations that will injure a concern that is dependent on low expenses for labor, will not necessarily injure those who use a higher grade of labor, or who use the same grade more effectively at a higher expense. In fact the latter may be benefited, for a certain kind of competition which they had previously to meet is eliminated. This may actually result in lower costs that will enable them to expand their business to an extent sufficient to take over nearly all the work previously done by their less fortunate competitors. After a period of readjustment, there may be

no evil effects as regards either prices or unemployment. Something of this sort is said to have happened in some of the cases in which minimum wage laws have been intelligently made and enforced. There is, however, a point beyond which the expense for labor cannot be advanced without evil consequences that far outweigh the good.

§ 4. If the selective process is to take place in such a way that the fittest shall also be the best it is necessary that each man shall do the work for which he is best qualified. As things are the adjustment is left mainly to the employers and employees themselves. If either group could do all the active work of making the adjustment, it would make no difference, so far as the result was concerned, which one it was. As a matter of fact, some action on the part of both is needed. An important element of fitness on the part of employers is therefore to find the men who can do best the work that they want done; and on the part of the workmen to find the positions in which they can do their most effective work. The results can hardly be said to be entirely satisfactory. It will hardly be denied that under present conditions there are many industrial misfits; and that even when a satisfactory adjustment is finally made, it is often after considerable hardship to both employer and employee and a heavy cost to industry.

There are some who seem to take the view that the ability to find the position in which he can do his best work is a quality that every man should possess; and that to relieve him of the task of doing so is not really desirable. The qualities, however, that make a good

worker are not always those that make a good job hunter. The man who is seeking a position, whether he be out of employment or merely trying to better his condition, is acting as a salesman for his own services. To do this well the qualities that make a good salesman are necessary. He must know, not only how to find his prospective employer, but how to present his qualifications in an attractive light. This may not be easy for the professional salesman, and for the man whose proper work is in the shop, the laboratory, or the office it may be very difficult. In some lines of work the qualities that are of special importance are the ability to be a good "mixer" and to make friends easily. "Personality" counts for a great deal. In other lines of work these qualities, however attractive they may be, are not of great significance. The things needed are reliability, skill, and specialized knowledge.

Even when the worker has a considerable degree of the ability to act as a salesman for his own services there are often serious practical difficulties. Perhaps the worst of these is the difficulty of securing information as to the positions that are open. Where the work to be done and the men who are able to do it well are geographically near to each other this difficulty is commonly at a minimum, though even then it may be serious. When they are far apart it is generally much greater. Especially under such conditions the search for work may take a considerable amount of time, during which the worker receives no income though living expenses continue. While something may be done by correspondence, this is not ordinarily satisfactory and a few expensive journeys may be

necessary. In some cases a man may hold one position while looking for another, but the fact that he has regular work to do is likely to prove a serious handicap. Upon the whole it is not at all surprising that a man who is looking for work will commonly accept the first opportunity that seems to him to be even moderately good; and that the possibilities for a change that will really mean an improvement are very largely dependent on circumstances over which he has but little control.

Largely as a result of such difficulties a man will often continue for a long time to hold a position in which he is not really happy and in which he can not do his best work. Even if the employer is not entirely satisfied and is actuated solely by business motives it is by no means certain that the employee will be dismissed. In some cases the cost of finding and "breaking in" of a successor will be a sufficient deterrent. Unless the employee is clearly incompetent his dismissal may have a bad effect on the morale of the working force; and in some cases may lead to difficulty with organized labor. It must be remembered, moreover, that the "misfit" is not necessarily a poor worker. He may compare favorably with others who are doing the same sort of work that he is, yet be a misfit in the sense that he would be happier and more valuable in another position.

Precisely how serious difficulties of this sort are it is hard to say; but it is certain that they are not trivial. A large part of the work of organized charity consists of finding employment for those who are unable to find it for themselves. Private employment agen-

cies, conducted for profit, find such a demand for their services as to make possible serious abuses. It will hardly be denied that for the specialized worker the loss of a position, even through no fault of his own, is ordinarily a serious misfortune; and that it is likely to mean not only that he will not secure a new position promptly, but that when he does secure it it will be poorer than one that he might well fill. Eventually, perhaps, such a man will be well placed, but in the meantime there is social loss as well as individual hardship. The unsuccessful search for employment whether the would-be worker be of high or low grade, if long continued, is likely to be permanently injurious, and he may even fall into the class of social parasites. There is some reason for thinking that men who have suffered in this way are a not unimportant element in extremely radical or revolutionary organizations.

§ 5. The responsibility for fitting the worker to the work rests not only on the employee but, to an even greater extent, the employer. Organization is one of the prime functions of those in charge of a business; and this includes the selection of workers and their assignment to tasks that they are willing and able to perform. In most concerns in which there are a large number of employees, changes must be fairly frequent even if the labor turnover is not unnecessarily large; and the taking on of new men is a normal, rather than an occasional, part of the business in the same way as is the purchase of raw material.

Some large industrial concerns maintain well organized departments, the function of which is to deal with the problems of employment in a scientific manner.

To such departments all applications for employment are referred, and careful consideration is given to the qualifications of the candidate for any work that the concern wishes to have done. Commonly if the worker fails to give satisfactory service in the position to which he is first assigned he is not discharged until many unsuccessful attempts have been made to find work that he can do well. Where such departments exist attention is commonly given to the development of employees as well as to their selection. By such policies much may be accomplished in fitting the worker to the work, in maintaining a high industrial morale, and in reducing the labor turnover. Where such departments are successful they mean for the employer a lower labor cost; for the employee less hardship in work and often increased pay; and for the nation greater efficiency.

A well equipped and well manned employment department is practicable only in a fairly large concern. It involves considerable expense, and this can be made small per employee only when the number of employees is large. Moreover, it is necessary, if the best results are to be secured that it have a considerable variety of work under its control. On the other hand, it is in large concerns that the need is greatest. Unfortunately, even among those that employ hundreds or thousands of workers the maintenance of a scientifically conducted employment department is far from being the rule. Employment management, as a distinct profession using the services of well trained men, is a comparatively new thing. There is little reason to doubt, however, that its importance will be more

generally recognized in the future than it is in the present.

Power for good and power for evil ordinarily go hand in hand; and while the growth of large scale industry offers great possibilities for the scientific selection of workers it opens the door for serious abuses. Where, for example, employment in a given line is well organized the man who has in some way come to be regarded as an undesirable employee is likely to find himself in a very unhappy position. If the number of employers is small, as it is likely to be when the individual concerns are large, something in the nature of a blacklist is more easily made effective than where there are many employers. If it were certain that such powers would be exercised only to keep men from being assigned to work which experience had demonstrated they could not do properly there would be little ground for complaint. Apparently, however, the blacklist is often used to bring about the refusal of employment to men who have been active as leaders of organized labor, or have in some other way incurred the displeasure of their employers. Even when their presence in the working force is really detrimental to the industry from a national point of view it must be remembered that to deprive them of the chance to earn a decent living is very likely to cause great evils in other directions; though these may not very seriously affect the concern that has rejected them. In some cases their exclusion may be justified; but, even so, the interest of the employer and the nation are not so nearly the same that the power of the employer can be regarded as a matter of public indifference. It must

be remembered that the extent of the evil is not to be judged merely by the number of men who actually suffer, though that may be a serious matter. There is the further evil that the power of the employer will lead some men to submit to a control that the employer should not exercise.

Partly because of the possibility of abuses of which the blacklist is a somewhat extreme type, there is much reason for thinking that the right of the workman to his job, save under certain conditions, should in some way be recognized and safeguarded. One of these conditions is that there is work to be done. Industrial changes sometimes make a reduction of the working force necessary; but there should be nothing arbitrary about the selection of the men whose services are no longer required. A man may be demoted, or in some cases dismissed, for incompetence; but there is much to be said in favor of the view that he should have a right to demand that his incompetence be clearly shown. There are other cases in which an employer may be justified in discharging an employee; but it may be doubted whether there are many in which he may not legitimately be required to show cause. On the other hand, the right to the job should properly carry with it the duty to perform the service which the job implies. Refusal to do the work should ordinarily, in the absence of a good reason for such refusal, be regarded as abandonment of the job. In the case of a strike or lockout some method must be found of determining whether the action of the party responsible is justified by the conditions. The principle involved seems to be one of those on which the Kansas Court of

Industrial Relations is founded. It was also involved in the strike of the railroad shopcrafts in 1922.

To the old fashioned employer who claims "the right to run his business as he sees fit" the suggestion that the laborer has a right to his job, even though subject to important qualifications, may seem to be a very radical one. Perhaps it would be radical if legal recognition were contemplated, especially in the case of the strictly private, unincorporated, employer. There are, however, a good many employers who see fit, as a matter of business policy, to act as though the employees had such a right though they may not formally recognize it. In fact, one of the functions of the employment manager is to maintain the feeling that there will be no arbitrary dismissals or demotions. In some cases practical, if not technical, recognition of such a right has been enforced by organized labor.[1] These are doubtless instances in which this has been done in such a way as to protect the laborer who is not rendering good service; but it by no means follows that organized labor should make no demands along this line. While, however, there are many cases in which the employee is treated as though he had some right to his position, such treatment is far from universal. In general, the means by which a proper degree of security can be assured to the worker are among the unsolved problems of industry; but it is a problem for which a solution is needed.

[1] For an interesting discussion of this and certain related subjects see Leiserson, Wm. M., "Constitutional Government in American Industries," a paper presented at the 34th Annual Meeting of the American Economic Association. *American Economic Review*, Vol. XII, March Supplement, 1922, pp. 56-79.

§ 6. While employers can do much through the scientific handling of employment problems to assign each worker to the work for which he is best qualified, the possibilities that lie in this direction are subject to important limitations. As has already been observed, an employment department can accomplish the greatest results only in the case of a large concern. Notwithstanding the growth of large scale production there are still many small concerns. In the latter both the varieties of work and the possibilities of advancement are, as a rule, narrowly limited. Moreover, even the largest concerns are dependent for the supply of labor mainly on those who apply to them. At times their need for additional labor is small, and many applications must be placed on file or rejected. For such reasons as these some agency which is independent of particular industrial concerns is needed if men are to be placed as promptly as possible in the positions in which they can render the greatest service.

The functions of the employment agency are essentially those of a certain type of broker. One of the most important parts of its business is to know the market for the kind of labor with which it is concerned, and to serve principals who cannot have much knowledge of the sort. Like many other brokers it has no authority to conclude a transaction. In many cases it simply brings the prospective employer and employee into communication with each other, leaving practically all of the work of negotiation to them. In others it does a part of this work itself. Much depends on the type of labor and the special conditions connected with its employment. Some agencies deal with highly

skilled or even professional labor, and here direct negotiations between the principals are important. Others deal with labor that is largely unskilled and frequently large numbers of men are wanted at once. Here the need for negotiation is reduced to a minimum.

There are many different types of organizations that do the work of employment agencies, though not all bear the name. Some are public, being operated by states or municipalities. Some are independent business concerns, being conducted for profit. Others are connected with organizations whose primary work is of a different sort; educational institutions, for example, devoting attention to the placement of those whom they have trained, or labor unions finding work for their members. Those of the last named classes are available only to a relatively small group of persons, and while they may contribute to the solution of the general problem they are far from sufficient to furnish a complete solution. While there seems to be no reason to doubt that some of those conducted for profit have done good work, there are a considerable number of cases, especially among those dealing with a low grade of labor, in which serious abuses have arisen. The demand for their services has been of such a character and competition between them has been so ineffective that careful work has often been unnecessary, and since they receive a fee for each job secured, poor work has sometimes been more profitable than good. It is at least partly on this account that some of the public agencies have been established. The latter appear, at least in certain cases, to have done excellent work; but they have not, on

that account, been able to displace the private agencies, notwithstanding the rather high price that the latter commonly charge for their services.

While the relative advantages of public and of private agencies cannot here be considered at length there are a few points that should at least be noticed. On the one hand the possibilities of abuse on the part of private agencies conducted for profit are so great and the evils of such abuse so serious that if agencies of this sort are to be permitted it should be only under careful supervision and regulation. Again, it would seem that, as far as the service is concerned, there would be a certain advantage in monopoly, since the more comprehensive an agency's knowledge of the work to be done and of the men available for doing it the better it could fit the man to the job. It does not follow, of course, that monopoly will necessarily arise under private operation. Another consideration is to be found in the fact that a governmental body has often a considerable advantage over a private one in collecting information. This is a large part of the work which an agency must do. On the other hand, a public agency may be subject to the very serious disadvantage of political control. Where this is the case, not only is the effectiveness of the work likely to be greatly reduced, but serious political evils arise. Again, it is a common objection to governmental participation in industry that public enterprise is less vigorous than private. As a general proposition this is probably true, but in any particular case there are special considerations that should be taken into account. One of these is the sort of appeal that a particular

activity makes to private enterprise. As has just been pointed out, private employment agencies, unless carefully regulated, offer possibilities for profitable abuse. Under such circumstances the advantages of private enterprise must be discounted for the harm done and for cost of supervision and regulation. Another consideration is the importance of enterprising ability for the work in question. In the case of employment agencies it would seem that expert, honest, intelligent labor is the thing most needed; and in securing these the public is, under favorable conditions, at little, if any, disadvantage. Still another important consideration is the extent to which private enterprise has shown itself able and willing to undertake the work. There are many lines of activity, of which education may be mentioned as an example, which are of great importance to the nation, but which private enterprise cannot, at least without public help, do in a sufficiently large measure.

It should be clearly understood that the services rendered by a properly conducted employment agency are not confined to helping the workman by finding him a job or to helping the employer by finding him a man who will do the work that he wants done. Unemployment, and employment at work inferior to that which the workman could do well, present a problem in national efficiency. During the Great War there was some realization of this; and an effort was made to place men in the positions in which they could do the most for the successful prosecution of the war. While the problem is perhaps less serious in times of peace, it is of no mean importance. The nation has

a direct interest in seeing to it that satisfactory employment agencies are established. Whether, under the existing conditions, this should be done by private enterprise under supervision, by municipalities, states, or the national government, is a matter which cannot be considered here.

CHAPTER VII

THE DEVELOPMENT AND INCREASE OF LABOR

§ 1. THE wise determination of the qualities that shall constitute fitness, of which giving an advantage to the worker rather than to the job hunter is but one example, is not enough to secure the highest grade of efficiency. It is also necessary to secure the fullest possible development of those qualities in each individual. That the potential abilities of the people greatly exceed the actual there is no reason to doubt. It is, to say the least, highly improbable that the superiority of the skilled worker over the unskilled, or even of the highly paid executive over all those who hold subordinate positions, is entirely due to innate capacity. While it is impossible to say how great the latent powers of the people are, two facts stand out clearly: in the first place, undeveloped capacity represents a national as well as an individual loss. In the second place, there is at present great inequality of opportunity; and, as a general rule, those who have great opportunities are more successful than those who have not.

The maintenance of educational systems that are not self-supporting, and in many cases make no charge at all to those whom they most directly serve, is due, in a large measure, to a recognition of the social importance of the development of the individual. In

the main, the education thus provided has been liberal, rather than vocational in character. The universities and colleges have, indeed, practically from the first, given training, especially along professional lines,[1] that might properly be regarded as vocational. The colleges of agriculture and mechanical arts are, of course, primarily for training in "practical" subjects. Only a small percentage of the young people of the country, however, attend the institutions of higher learning. In the lower schools vocational education has, at least until recently, occupied a distinctly subordinate position.

It has, of course, been generally recognized that a liberal education is of considerable economic value to the individual; and this is undoubtedly one of the reasons why it receives such general popular support. Nevertheless, liberal and vocational education are commonly regarded as fundamentally different; and there has been a widespread feeling that the former was a proper function of the public schools, whereas the latter was not. This is largely due to the idea that a liberal education, while of material advantage to the individual, is a training for citizenship, whereas the chief effect of vocational education is to increase individual earning power. The delay in introducing vocational education into the schools was doubtless due, in part, to the fact that the practicability of formal education along vocational lines and the difficulty of securing the necessary training in industry itself have only

[1] Some of the oldest American universities were founded primarily for professional education, especially in theology. It is worth noting that some of these began as colonial, rather than private, institutions.

recently been recognized. Even at the present time, however, it has not the well-nigh universal support that is given to liberal education.

Not only is vocational education of great importance from the point of view of national industrial efficiency, but many of the most technical subjects give mental training as valuable as that given by the subjects that are commonly called liberal. Mechanics, electricity, and farming, for example, involve the application of scientific principles. In many cases they lead to an interest in these principles, and an understanding of them that would be impossible were they approached from the point of view of the science rather than the art. Much, though not all, of the work done in training men and women for business is of high value as mental discipline and deals with facts that are important for the citizen as well as for the business man. Undoubtedly there are some non-vocational subjects that should be a part of compulsory education; but recognition of this fact is not incompatible with making education largely vocational in character.

Formal education does not, of course, necessarily cease when a boy or girl leaves school. Night schools, correspondence schools, and other educational facilities, some private and some public, are available to many who must spend a large part of their time in remunerative work. The average man, however, needs some time for relaxation; and, generally speaking, hard study, whatever its advantages, cannot be said to afford much relaxation. Moreover, most men who have even moderately heavy family responsibilities, are likely to find that their leisure time is rather fully occu-

pied. Notwithstanding all disadvantages, however, educational facilities of this sort are among the most important means by which industrial efficiency can be increased. The demand for them is very encouraging; and with the general establishment of a shorter working day, this demand may be expected to become greater.

It may be thought that the work which a man does should itself be of considerable educational value. Sometimes it is, but there are unfortunately a very large number of cases in which it is not. Taking industry as a whole there are two tendencies in operation. On the one hand, the growing specialization of the work, and the consequent narrowing of the worker's activities, does much to exclude him from learning the work of different departments, and often of the higher positions in his own. This is an evil which some of the methods by which employers try to increase efficiency from their own point of view seems to intensify. On the other hand, there is a growing realization, on the part of employers, of the need for well trained men, and in some cases a feeling that the best way to fill the higher positions is by promotion. There are a number of industrial concerns in which the attempt is made to make the work itself educational in character; and in a few instances schools are maintained for the benefit of employees.

The training of employees, however, commonly involves some expense; and this expense is, generally speaking, in the nature of an investment. It will pay only if the employees can be retained for a considerable period of time. This difficulty is not necessarily very

serious for a large concern which has many positions to be filled, and which can therefore advance with a fair degree of rapidity employees who deserve it. It is still less serious for a large concern which occupies a substantially monopolistic position, and can therefore be fairly sure that it will be able to retain its employees. It would seem that in this respect, as in many others, large scale production offers many opportunities for the development of efficiency. Where advantage is not taken of these opportunities small scale production is probably of greater educational value, partly because the work is commonly less specialized, and in any event the employee has a better chance for the observation of other lines of work than his own. Where vocational education is provided by the state the disadvantages to which small scale industry is subject in this matter are greatly reduced.

§ 2. Opportunities for vocational training after a person has entered upon his life work are of great importance. In a very large number of cases, however, the period during which his time and attention are devoted primarily to education should be much longer than it is. It is to the interest of the nation that the necessary facilities be provided; but this is not enough. There are serious difficulties in the way of many who would gain much, both for themselves and for the nation, by taking advantage of them. Some of these difficulties are economic, the student being compelled by circumstances to spend most of his time and energy in remunerative work. Others are psychic, the prospective worker failing to realize the importance of adequate preparation. This attitude is

partly a matter of individual and partly a matter of social psychology. It is true that the exceptional boy or girl will often overcome extraordinary difficulties; and will even seem to draw strength from the struggle. It is not only on the exceptional individual, however, that national strength and efficiency depend. Attention must also be given to the average man and even to the man that is below the average.

One way of meeting the economic difficulty is to provide, at public expense, for the support of the students, altogether or to the extent necessary, during a period of training. To a very limited extent this is now being done through mothers' pensions, school pensions, and in other ways, in the case of children below the age at which school attendance ordinarily ceases to be compulsory. The training made possible is not, as a rule, vocational; and in view of the ages of the children concerned it is at least doubtful whether it should be. Under very different circumstances and in a different way, the United States Government is providing vocational education and economic support to persons suffering from vocational disabilities received in its service during the Great War. That the country is under special obligation to these men and women there can be no doubt; and the provision of special educational opportunities, including economic support, is one of the ways in which it is attempting to meet this obligation. The policy adopted is, of course, something of an experiment; but it is quite possible that it will so justify itself as to warrant its extension, probably in a considerably modified form, to others who have no special claim upon the country.

A general policy of public support, even during a period of education, is not without difficulties and dangers. The chief difficulty is, perhaps, the expense involved, and the chief danger the weakening of self reliance or of parental responsibility. Neither the difficulties nor the dangers necessarily constitute insuperable obstacles; though in many cases they make safeguards necessary. As regards the most elementary forms of education the expense is at a minimum and the benefits fairly certain. The pupils are at an age where self support is not to be expected or desired; and the education may be of such a character as to strengthen rather than to weaken self reliance. If public support is limited to the cases where the parents are unable to bear the burden, the weakening of parental responsibility is probably not a very serious consideration. It is, of course, possible that knowledge that the children would be properly cared for would lead to a higher birthrate among the improvident and inherently incapable but it seems more likely that this class would exercise but little restraint in any case. Certainly to release a child from the operation of the compulsory education laws in order that he may contribute to the support of the family cannot be defended on the ground of parental responsibility; and is injurious both to the child and to the nation.

A system of universal vocational education, especially if it included complete economic support, would undoubtedly require considerable governmental expenditures. If, however, international affairs could be so ordered as to make unnecessary a large part of the

present expenditures for military and naval establishments, it would not only be possible to make greatly increased provision for education, but at the same time to reduce taxation in a substantial degree. Unfortunately, heavy military and naval expenditures will probably continue, at least for a long time, to be necessary. It is, however, possible that international arrangements may yet be made under which such expenditures can be greatly reduced; and it is even probable that their growth may be checked. To the extent that this is done considerable amounts of wealth can be made available for other purposes, one of the most important of which is the increase of the economic power of the nation through the development of the potential capacities of the people.

The expense which a national system of vocational education would impose on the public treasury must not be exaggerated. The system could be made at least partially self supporting. Even under existing conditions many students "work their way" through college or the professional school and an even larger number earn enough to pay a part of their expenses. In some cases special arrangements are made by educational institutions with business establishments by which a part of the time of the students is spent in service to the latter and for this service payment is made. In some cases schools are conducted by business establishments for the training of their own employees. How far arrangements could be made under which the students could earn a part of their expenses under a system which attempted to provide vocational training for all, it is difficult to say. The

numbers concerned would in all probability increase some difficulties that are not insurmountable. It may be questioned, moreover, how far much of the work done by students to enable them to pay their expenses does not really deprive them of some desirable educational opportunities. There seems to be little reason to doubt, however, that not all of the expense of such a system need be defrayed by taxation.

The form and even the degree, of vocational education that can wisely be provided in any particular case must depend on the desires and character of the person receiving it and on the need for the services that he can be prepared to render. To a limited extent the aptitudes of the individual can be determined by modern psychological methods. The best indication available of the need for any particular kind of service is furnished by the pay which workers in that line receive, some allowance being made for other attractive features of the work. Guidance, however, must not be understood to mean the same thing as compulsion. Within limits the individual must be allowed to choose his line of work; though free training might well be refused to anyone along a line for which he was clearly unfitted or in which there was no substantial need for workers. As to the degree of education, there are, of course some who should be exempted from the normal requirements, either on the ground of disability or on the ground that they received an adequate training in some other way. Those who showed unusual ability might be given the opportunity to continue their training to a more advanced stage though, of course, they could hardly be required to do so.

Many of the difficulties in the way of developing the industrial qualities of the people may be expected to become less serious with the growth to a comprehensive system of vocational education. As regards the cost, it must be remembered that the effect of such a system would be to increase earning power. In so far as it did this the wealth devoted to the purpose should be regarded as invested rather than consumed. The tax-paying ability of the people would be increased; and in this sense the system would itself furnish the means for its continued support. The fact that such training was readily available, together with the increase of earning power that would result from it, would almost certainly lead to a more general recognition of its importance. It must be remembered that "the destruction of the poor is their poverty"; and those at the bottom of the industrial scale have ordinarily neither the breadth of view to enable them to see the importance of training, nor the means necessary to secure it.

§ 3. In connection with determination of the qualities that shall constitute fitness and the development of those qualities in the individual, it must be remembered that there are a considerable number of persons who receive little or no income in the form of wages, interest, rent, or profits. Some of these perform useful services, but of a sort which is not usually thought of as economic in character. Others are temporarily or permanently incapable of performing any substantial degree of service of a recognizable sort. A full consideration of the problems involved would require more space than can be here devoted to it; but there

are some points that should not be allowed to pass unnoticed.

Among those who belong to the non-industrial part of the population there are many who perform functions of greater social importance than any industrial functions they could possibly perform. Perhaps the most striking example of this class is furnished by the mothers of young children who will later become useful members of society. For many purposes the family is the social unit. It is not ordinarily to the interest of the nation that either the mother or children should take an active part in industry; and responsibility for their support normally rests on the husband and father. Where this responsibility cannot, or for special reasons should not, be enforced a problem arises in which the interests of the nation, as well as of the individuals immediately concerned, are involved. If there is some one who is able to bear the burden and whose relation to the family is such that he may properly be expected to bear it this problem is relatively easy of solution. It is not a satisfactory solution, however to force the mother of young children or the children themselves to enter industry.

A second class of those who make little or no contribution to the production of wealth consists of the victims of special misfortune, such as sickness or accident. So far as the dependents of such persons are concerned, the case is much the same as that which has just been considered, though it is complicated by the fact that the normal breadwinner has himself become dependent. As regards the latter the problem is a little different, for his ability to serve society,

whether economically or otherwise is ordinarily reduced if not destroyed. Where the disability can be removed it is, of course, to the interest of society that this be done. Even where its removal is impossible, or possible only at an excessive cost, the nation cannot be indifferent to the suffering of the individual. Its sole object is not the production of wealth; and if it were it is highly doubtful, to say the least, that such an attitude would lead to the development of the best workers.

Old age should hardly be regarded as a misfortune in the sense that it were better that the individual should die before old age comes; but it has much in common with sickness and accident. It ordinarily brings with it disability of a similar kind. Its coming, in the case of any individual is uncertain; for many die before the disabilities of old age have seriously affected them. Some are, of course, well able to accumulate, during the period of their working lives, a fortune sufficient to support them when active participation in industry should cease. In a very large number of cases, however, this is neither practicable nor desirable; for incomes are too small to justify an amount of saving adequate to provide for all future contingencies, when there are many certain and urgent needs in the present. There are probably few cases in which no saving at all is desirable; but thrift can be encouraged in better ways than by the threat of a future need for which it is impracticable to make adequate provision and which will, in a large percentage of the cases, never become actual.

The loss of the breadwinner, disability through sick-

ness or accident, and old age are all among the chances of life; and because they are chances the principle of insurance furnishes one of the best possible methods of dealing with them. The man who has paid a fair premium, suffered the loss against which he has taken insurance, and received the payment for which provision was made in the policy, is in no sense a recipient of charity on that account. He has paid for relief against a chance that he could not avoid; and in this sense he has paid in full for all that he received.

It does not follow from the fact that the chances of life can be largely cared for by insurance that the matter should be left entirely to the discretion of the individual directly concerned, on the theory that if he fails to make proper provision against them he must take the consequences. One difficulty is that there are consequences for the nation as well as for him. Neither does it necessarily follow that there should be a system of compulsory insurance in the sense that the contribution of each should be determined as nearly as possible on an actuarial basis. While it may be that such a basis is the best, it must not be forgotten that the nation itself has an interest in the matter. It is quite possible that at least a part of the expense may be legitimately defrayed by general taxation. Neither the way in which the burden of taxation should be distributed nor the government unit by which it should be levied need be considered here. What should be clear is that some adequate provision should be made against chances of the sort that have just been considered, and that insurance, in some form, furnishes what appears to be the most promising method.

§ 4. While the determination of the qualities that shall constitute fitness and the development of the powers of the individual are essential, they are not sufficient to secure the largest measure of national strength and well-being. Much depends on the innate capacities of the people. So far as is possible without causing greater loss in other directions the increase of those who possess ability must be encouraged and the number of those who are incapable of becoming useful members of society must be kept at a minimum. The methods by which these ends can be accomplished are to be found in the application of the principles of eugenics and in the regulation of immigration. It will, of course, be understood that in neither case is economic capacity the only consideration that should be taken into account.

Under present conditions any attempt to make practical use of the principles of eugenics should be marked by great conservatism. The knowledge necessary for their intelligent application is far from complete and the dangers of an unsound policy are great. It is possible only within very narrow limits to say who would be good parents for the next generation, or by what methods parenthood can best be encouraged on the part of those who are well qualified for it and discouraged or prevented on the part of those who are not. The instincts that must be controlled are very powerful; and much incidental harm may be done in the attempt to direct or suppress them. Besides this a serious question of individual liberty is involved which is of too great value to be treated lightly.

It must not be supposed, however, that parenthood is

a matter which is now left entirely to the men and women most directly concerned. Among the most important instruments of social control are marriage and the family. The state lays down by law the conditions under which marriage may be contracted or dissolved. Whether wisely or not the attempt is made to prevent the practice of birth control; and the agitation against such laws very strongly suggests that they have not been without substantial effect. Illegitimacy has an important legal significance. Even more powerful, perhaps, than the law are social custom and tradition. They have great influence in determining the age of marriage, the selection of a spouse, and the size of the family. To say that social regulations on the subject are sometimes violated is to deny neither their general importance nor the right of society to impose them.

While the control which society now exercises over the increase of the native population is not without eugenic effect, it is not ordinarily governed by any clearly defined eugenic purpose. Probably there is little that can be done by law, at least until knowledge of heredity is substantially increased. In that little, however, may be included the prevention of propagation of their kind by certain types of the diseased, the insane, and the criminal. Something has already been done along these lines, but further action is needed. At the other end of the scale, where parenthood is most desirable, no special encouragement has been given; and it is hard to see what legal encouragement would be practicable. It is true that laws are proposed from time to time the object of which is to encourage large

families. Among these is the perennial suggestion of a special tax on bachelors. So far as laws of this sort would have any effect from a eugenic point of view it would probably be bad; for unless discrimination of an impracticable sort were to be made any pressure that could be imposed would probably be felt most keenly by those who were least qualified to found and maintain a family.

On the face of it at least, social ideals often have an effect directly contrary to that which they would have if they were based on eugenic principles. It is often said that society tends to die at the top, those who are especially well qualified for perpetuating it having few or no children and those who are themselves of low caliber, having many. There is probably something in this, though it should be noticed that the test that is applied to judge ability is usually economic success, and this is ordinarily dependent at least partly on other things than innate capacity. Were the idea entirely sound society might be expected to deteriorate; and this, so far as can be judged, is not happening. The fact probably is that among those who, for some extraneous reason, are economically unsuccessful there is some innate ability of high grade, and that a part of this ability rises to the top in each generation. It is even possible that some new ability arises through the process of variation. Whether or not this be true the results would probably be much better if the economically successful were, as a rule, to have larger families.

How social ideals in this matter can be improved it is difficult to say. A few things, however, are clear:

public opinion is a very powerful influence in determining individual action in matters of this sort, it depends partly on knowledge; and adequate knowledge on the subject is not available. Further study is necessary, and after this time must elapse before it can have very much effect. A better understanding must become a regular part of the mental equipment of those who are influential in forming public opinion; and from them it must extend to the people as a whole. Not only must the importance of eugenic principles be generally understood, but a way must be found of determining with a closer approximation to accuracy who are especially well or ill qualified for parenthood. This, at any rate, would be much easier if a systematic effort were made to develop the powers of the individual.

§ 5. Some of the problems connected with immigration are similar to those connected with the growth of the native population. The immigrants who remain in the country become members of the nation in an economic, if not also in a political, sense; and the children born after their arrival are natives. The regulation of immigration, however, is far easier than the regulation of parenthood. The right of a man or a woman to enter a country and settle there is not regarded as sacred as the right to marry and have children. The character of the immigrant can be examined much more closely than is practicable in the case of an applicant for a marriage license. When the foreigner is refused admittance the matter is, with comparatively few exceptions, definitely settled as far as he is concerned, whereas the refusal of a marriage

license does not necessarily preclude the birth of children out of wedlock. It is only in the case of those who are sterilized or brought under institutional care that parenthood can be prevented; and there are many of an undesirable type to whom these methods cannot, as a practical matter, be applied.

The difficulty of judging whether or not a given individual would make a good parent is much the same in the case of the immigrant as in that of the native. The immigrant, however, should be judged very largely on the basis of what sort of a citizen he himself will make. Those who are found to be undesirable may properly be refused admittance. To be sure, the characteristics which make a man undesirable may be the result of traits fundamentally good which have received an evil modification as a result of his early environment. This is one of the things that should be taken into account in judging how far he is desirable; but it is only one. It is, of course, only within narrow limits that political opinions or economic condition should be regarded as tests of desirability.

National strength and welfare may, of course, be increased through the coming of immigrants of a desirable sort. Some new countries have made a deliberate effort to encourage immigration of this kind. England and the United States have both gained much from their tradition of freedom and the fact that they have been places of refuge from religious and political oppression in other lands. Generally speaking, however, economic opportunity is the chief inducement that can be offered to immigrants. This may attract immigrants of an undesirable as well as of a desirable

sort; but if those who cannot make a fair contribution to national welfare are excluded the net result is fairly certain to be favorable. In a new country with abundant natural resources economic opportunity can readily be made available. Where natural resources cannot be offered on easy terms more depends on industrial organization. Efficiency in this respect means opportunity, and in this way tends to attract ability.

CHAPTER VIII

THE CONSERVATION OF NATURAL RESOURCES

§ 1. UNDER the head of natural resources should be included all those parts of man's physical environment, so far as they are not products of his own industry, which are economically useful to him. It is in natural resources that man finds the raw materials for his industry and the external forces over which he can exercise some control. He cannot increase the amount of such resources, but he can add to his knowledge of those that exist and of the means of using more effectively those of which he knows. In this way he may make actual those that were previously only potential. By the use of labor and capital he can so modify the resources that nature provides as to make them more suitable for his purposes or to prevent a deterioration that would otherwise occur. All this is a matter of increased expenditure of human energy or of increased efficiency. The fact that natural resources are limited in amount is, nevertheless, one of their most important and fundamental characteristics; and it is largely because of this limitation that efficiency in their use is of great significance to national welfare.

Natural resources may be divided into three main classes depending upon the effect which use has on

them. These may be described as inexhaustible, conditionally exhaustible, and necessarily exhaustible. The lines between the three classes are not sharp, there being a few cases in which classification is difficult. A given resource, for example, might theoretically belong in the second or third class, but might properly be placed, for practical purposes, in the first because it is available in such large quantities that the reduction due to man's greatest demands on it is insignificant. Cases of this sort, however, are exceptional; and the distinctions between the three classes are ordinarily both real and important.

Among the resources that may be regarded as inexhaustible are many of the first importance. The use of water, for example, whether for power or for irrigation, has no appreciable effect on the sources of supply. Light and heat will continue to pour from the sun regardless of what use man makes of them. Winds and ocean currents, through their effect on climate, may contribute greatly to the production of wealth, but the production of wealth has no known effect on them. Harbors, generally speaking, suffer no deterioration as result of the arrival and departure of vessels. Owing to the limited supply of some of the resources in this class efficiency in their use may be important, but they may be used to the fullest possible extent without fear of loss.

In the class of conditionally exhaustible resources belong those the exhaustion of which is easily possible but may be avoided. The fertility of the soil, for example, may be lost as a result of use, though by certain methods of cultivation, such as the rotation of

crops and the combination of dairying and stock-raising with agriculture, this loss may be made very small, if not entirely prevented. Fisheries are by no means inexhaustible, yet they may be made to yield large quantities of fish indefinitely provided sufficient opportunity for spawning is allowed. Forests are frequently destroyed in connection with the removal of the commercially valuable timber, yet they can be made permanent sources of supply at a somewhat higher cost. Even when production takes place in such a way as to cause some loss of resources of this type, complete restoration is sometimes possible through such methods as fertilization, the maintenance of hatcheries, and reforestation. In an important sense this means the substitution of capital for natural resources; but the effect is the same as though there were no loss of the latter.

The third class includes those resources that are necessarily exhausted by use and for which no practicable method of restoration is known. This is true of such things as the metals, coal, and petroleum. In the case of farming, the fisheries, and the forests nature tends to replace what is taken away provided a sufficient amount is left. It is otherwise in the case of mines. The mineral that is left contributes nothing towards replacement, and ordinarily is itself more difficult of removal than it would have been had it been taken out with the rest. No doubt improved methods may in the future make available resources that are of little significance at the present time. Gold can now be recovered by the cyanide process from ores that it once did not pay to work, and even from the leavings of former operations. No doubt substitutes may be found

for some of the things that can now be obtained only from certain types of resources. Electricity generated by water power has already taken the place, to a large extent, of the power secured from fuel. There is no assurance, however, as to what the future will bring forth; and in the meantime natural resources of the sort here under consideration are of great importance.

It is not only as a direct result of use that natural resources are exhausted or destroyed. A forest fire may be started by a spark from a passing locomotive. The clearing of land may result in erosion. Some losses are not due, even indirectly, to man's activity. Harbors may become partially filled with silt and their usefulness for commerce thereby impaired. Mines may be injured by earthquake or flood. Some of these losses can be prevented or restored at a cost that will be amply justified. The forces of nature are constructive as well as destructive; and in some cases man can contribute to the constructive process. Strictly the expenditure of human energy on natural resources, whether for preservation or for development, modifies their character as natural resources. Many of the problems of conservation, however, and, to a less extent, the problems of development, can better be considered in connection with natural resources than in connection with capital.

§ 2. Conservation should not be confused with non-utilization. It is more often a matter of efficient use. As has already been pointed out [1] the present use of exhaustible resources for purposes of less importance than those for which they would otherwise be used

[1] Chapter III, pp. 49-51.

later is a form of inefficiency and, if the facts could be known, might well be prevented as a measure of conservation. It is only within narrow limits, however, that a reasonably reliable estimate of the facts, either as to future needs or the ways in which they may be met, is possible. The future may properly be discounted rather heavily; but it should not be entirely neglected. Where the cost of preservation or of restoration, in the light of such facts as can be obtained, is reasonable the bearing of those costs is justified. Certainly where hydroelectric power and fuel can be made to serve the same purpose at approximately the same cost the former is much to be preferred in the national interest. There are, of course, cases in which what appears to be simple destruction of natural resources should not be condemned on the ground of efficiency or of conservation. In the past much land for agriculture has been made available by the clearing of the forests though at the time no use could be made of the timber. Broadly speaking, cases of this sort should be regarded as the development of resources, rather than as their destruction.

Many natural resources, whether exhaustible or not, are available only in such quantities that their use is subject to the principle of diminishing returns. A water power, for example, can be used indefinitely without deterioration, but beyond a certain point the cost of the dam, and perhaps of other equipment, increases rapidly, with a consequent increase in the cost per horse-power. The water powers of the United States are enormous, but they differ greatly in accessibility and in the cost of development. Again,

whether the methods of forestry be conservative or not, the amount of timber secured from a given area can be increased, beyond a given point, only at an increased cost per board foot. Partly because of the wasteful methods used in the past lumber must now be carried for great distances. The same principle applies in the case of the fisheries. The pressure of diminishing returns against agricultural land is such as to justify costly reclamation projects. Some minerals are known to be widely distributed throughout the world. This is true, for example, of gold, but in the case of many possible sources, extraction would be so costly as to be out of the question. It is ordinarily cheaper to take only a part of the mineral from a given mine than to take it all.

Under some circumstances natural resources may legitimately be withheld from use, even for a considerable period of time. Obviously some delay is justified pending the determination of a wise policy of development, though in this case prolonged delay is rarely necessary. Within limits not easily fixed reserves may be held against a probable future need. Where the use of a natural resource is destructive, as it necessarily is in the case of mines, intensive utilization may be enforced by the withholding from use of a part of the resources available. On the other hand, there are cases in which it is well to restrain the fullest use of the best resources in order to compel the development of those that are somewhat inferior to a point where they will readily be available at short notice in an emergency. A city, or a private corporation, dependent on hydro-electric power, for example, may rightly in-

sist that under all save the most extraordinary circumstances there be some surplus power, even though the cost of maintaining such a surplus is considerable. Generally speaking, however, the withholding of natural resources from the fullest use must, in the absence of good reason to the contrary, be regarded as an evil, not only because it deprives some men of opportunities that they should have, but because, even so far as the resources themselves are concerned, it means national inefficiency.

§ 3. Some attention has already been given to the institution of private property with reference to national resources.[2] It was there pointed out that a special class of persons whose own interests are, in a peculiar sense, bound up with the natural resources of the country is, generally speaking, desirable. The time may come when this class will have outlived its usefulness, but there is no reason to suppose that this will be in the near future. There are some cases in which a large measure of public control, or even public ownership, is justified at the present time; but these are exceptional. It must be remembered, moreover, that while natural resources, in the strict sense, are not products of human industry, they are commonly very closely associated with it, and that what are really profits, wages, or interest sometimes appear under the form of rent. The problem is further complicated where natural resources have already become private property. In such cases, even if a policy of public ownership is desirable, allowance must be made for the expense of public acquisition. This is of course very

[2] Chapter V, § 6, pp. 106-109.

largely a redistribution of cost, rather than an increased cost, but it is a cause of increased difficulty, and in so far some increase of real cost is involved.

It does not follow that the right of private property is, or should be, absolute. It is always qualified by the right of eminent domain even though compensation is made to the owner. Taxes are, in many instances, imposed with respect to private property; and a tax is a compulsory contribution to the public for which no specific compensation is made. Under the "police power" substantial burdens may be imposed on the property owner without providing for any compensation. Private property in natural resources, moreover, does not necessarily imply ownership in fee. It may be qualified in various ways. Even a leasehold may be made to serve some of the purposes of outright ownership; and in some cases it may be better for the nation, in its collective capacity, to lease the natural resources that it owns rather than to give permanent title to them.

There are a number of cases in which private rights to natural resources are almost necessarily narrowly limited or even entirely absent. The fish in the high seas, for example, are not subject to private or, in the ordinary sense of the term, to national ownership. Even within waters subject to national jurisdiction private property in the fish is not ordinarily practicable. Fishing grounds may, indeed, be privately owned, but the fish may in most cases readily pass from one place to another, and no right of property follows them. What is true of fish is, generally speaking, true of game, though the land on which the game live is ordi-

narily private property. Petroleum, like fish and game, is not readily confined to a given area unless it be a very large one. Where, as is usually the case, many owners have land that gives access to the same source of supply no one of them has any legal grievance if others, working on their own lands, tap the same reservoir.

All this has important consequences for efficient utilization, especially with reference to conservation. Those whose business is dependent on any such natural resources have, of course, a collective interest in maintaining the source of supply. Where, however, there are a number of concerns engaged in the industry none of them can be sure that it will get the benefit from any costs that it may incur in the interest of conservation. It is true that where one concern controls a considerable portion of the business it can be confident that it will gain a substantial share of the benefit; and in some cases this will furnish a sufficient motive for action. It is presumably because of this principle that a few of the larger salmon canning companies in Alaska maintain hatcheries, though they are no longer required to do so.[3] It does not appear, however, that the number of such hatcheries is nearly sufficient. Where there are only a few concerns in an industry coöperation for the conservation of the resources on which they are all dependent may be possible, though there is always the danger that anything of this sort will be subject to suspicion as a combination in restraint of trade, and an expensive—even if successful—

[3] See 'Report of the Federal Trade Commission on Canned Foods: Canned Salmon (1919), p. 75.

defense may be necessary. Unless, however, there were a very firm combination the motive of the individual concern to pay a share in the costs of conservation would not be as strong as though the entire results of its action or inaction were to accrue to itself alone. Where combination is impracticable, and in some cases it is, governmental regulation, if not governmental operation, is often necessary in the interest of conservation. Where a policy of regulation is adopted the costs may generally be laid on the industry by appropriate taxation or by a system of license fees.

It would appear that the absence of property rights, or of any adequate regulation, was one of the chief circumstances which led to the decline of the North Atlantic whaling industry during the last century. Property rights were, of course, impracticable; and save in a greatly qualified form would probably have been objectionable if they could have been given. Adequate regulation was, perhaps, no less impracticable at the time. The result, however, was the loss of an important resource in which the United States, jointly with other nations, was interested. The sealing industry would probably have gone the same way, had it not been for governmental regulations involving international understandings. The imperative need for regulation of the fishing industry, at least so far as it lies within national jurisdiction, is now generally recognized and provision is made for it. Mere regulation, however, such as has been imposed is not adequate, the government hatcheries are operated to maintain the sources of supply. Some important kinds of wild animals have been practically exterminated,

and now hunting is generally subject to regulation. In the oil fields great losses have been incurred through the drilling of unduly large numbers of wells by the owners of different lands that tap the same reservoirs. In this case adequate regulation, at least unless combination is permitted, is exceedingly difficult.

§ 4. Private property in natural resources, even when entirely practicable, does not necessarily assure reasonably efficient operation. A very important consideration is the cost, from a private point of view, of securing new resources to take the place of those that are destroyed or materially injured. Conservative utilization generally involves costs of its own; and if these are greater than the costs of securing new resources utilization is not likely to be conservative. In agriculture an abundance of free or cheap land commonly results in the cultivation of the same sort of crop year after year with little or no fertilization, and the consequent exhaustion of the soil. This is well illustrated in the history of the United States, especially in the South during the régime of slavery. Scientific methods of forestry are hardly to be expected where plenty of virgin timber is readily available. The intensive working of mines means the taking out of a large proportion of the mineral that they contain; and this involves expenses which will not readily be incurred if new mineral lands can be secured and developed more cheaply.

It may be thought that the ownership of large reserves encourages wasteful use, since the holding of such resources, whether they be used or not, involves expense which makes some income from them desir-

able. In some cases this idea is doubtless true; especially when the resources in active use are worked far beyond the point of diminishing returns and there are bonds outstanding on which interest must be paid on pain of bankruptcy. It will probably be found in a much larger number of cases, however, that the point of view of those who hold considerable reserves covers a longer period of time than that of those who do not, and for this reason their policy will be more favorable to conservation.

Conservation, in some of its forms, requires the tying up of considerable amounts of capital with natural resources. How readily capital will be provided for the purpose depends upon the length of time that must elapse before the returns may be expected, the adequacy of the estimated returns, due allowance being made for the risk of loss, for compound interest on all costs for the waiting period, and for certain other factors that need not be considered here. In the case of reforestation the time that must elapse before large returns begin to come in ordinarily covers a period of at least fifty years. The cost from a private point of view includes, in addition to the cost of acquisition, some annual expenditure, of which taxation is frequently an important item. Besides this there is the danger of heavy loss from fire or storm. Theoretically there is the danger of loss through a decline in the market value of the timber; but a rise in value seems to be more likely than a fall, and this chance of gain probably more than offsets the chance of loss. In the case of agricultural land, on the other hand, the returns ordinarily come in rather promptly. Fertilization of

the soil, for example, may be expected to yield returns within a year. In some cases, of course, the period may be much longer. This would be true where the land is not wanted for immediate use but expenses had to be incurred to protect it from erosion.

It may, perhaps, be thought that where conservation does not pay, it really means an inefficient, rather than an efficient, use of natural resources. This would be true if the private and the national points of view were the same. The interest of the nation, however, ordinarily covers a much longer period of time than does the interest of the individual. Most of the costs are, indeed, national as well as private costs, but the permanence of natural resources is of much more importance to the nation than it is to the individual. For the nation loss of natural resources means future weakness, or at least a handicap to the growth in strength. The loss may fall in but a small degree upon those who are in control of natural resources at any particular time. There is, of course, a limit, even from the national point of view, to the costs that may properly be borne in order that certain natural resources may be preserved; but the limit is much further advanced than is the corresponding limit in the case of an individual.

It cannot be successfully denied that under some circumstances the inefficient use of natural resources may result in some advantage to a nation. This is especially likely to be the case when the damage done is only partial and is of a sort which nature will repair, even though slowly, or which may later be repaired by man. The westward movement of the population of the

United States, in so far as it was due to this cause, may be taken as an example. If the United States was to become the great and wealthy nation that it now is, the acquisition and settlement of new territory was desirable. In so far as the acquisition of the western territory was the result of war it was not industrial in character, though not without economic advantage.[4] Not all, or even the greater part of the western territory was acquired in this way. Settlement, however, was an important consideration in connection with the maintenance of sovereignty and with it the control of natural resources. It is not only in connection with the acquisition of new resources that the inefficient use of the old may have advantageous results. It may apply the pressure necessary to lead men to seek out new and better methods of exploitation which may more than make up for all that is lost.

It must be remembered, however, that the exhaustion of resources, even when it results in some advantages is itself an evil. Some men, and some nations, will add to their resources or will learn how to make better use of those that they have only when the failure to do so will result in prompt and substantial evil. Others will not do so, even under such circumstances; and in the ordinary course of events these must perish. Still others will be powerfully stimulated by any pros-

[4] It may be admitted that war has, in the past, played a great part in the growth of nations and even of civilization at large. It does not, of course, follow that a world in which war is an important means of advancing national interests is the best possible; or even that if it be so under one set of conditions it is so under all.

pect of loss, and even in its absence will take action in the hope of improving their condition. These are the ones that are most likely to become dominant in the world. A very considerable proportion of the people who came to the United States from Europe, and to the British colonies from which the United States was formed, were men of this type. The partial exhaustion of resources in the older parts of the country, and still more the pressure which came with increasing numbers, were among the chief causes of the westward movement of the population. Now that the country is fairly well occupied and few desirable additions to its territory are practicable, save perhaps by a sort of conquest in which the American people as a whole have no desire to indulge, attention must be given more largely to a better use of the resources which the nation now possesses.

§ 5. Among the circumstances that have an important bearing on efficiency in the use of natural resources are competitive conditions. That unrestrained competition is extremely costly, if not quite impracticable, in certain lines of industry, particularly those in which the so-called public service corporations are engaged, is now generally recognized. Usually, however, it seems to be taken for granted that competition should prevail in the exploitation of natural resources, though many who have given the subject special attention take a different view. Speaking particularly of minerals, President Van Hise, of the University of Wisconsin, some years ago, went so far as to say that "the wastefulness of the competitive system can be proved with regard to every product that is taken from

the earth." [5] There are perhaps few who would go as far as this. Even if it were conceded, however, that a substantial amount of waste of natural resources is inevitable under competitive conditions, it would not follow that competition is equally important as a cause of waste in all cases or that the same remedy should be applied in all.

The significance of competition as a cause of waste has, perhaps, received more attention on the part of those interested in conservation in the case of mines than in that of any other natural resources. Mines are, of course, of many different kinds; and some things that are true of one kind are by no means true of all. Competition may be expected to work differently, for example, in the case of a coal mine of the sort most familiar in western Pennsylvania and in that of a placer gold mine in Alaska, and even between two types of mines producing the same sort of mineral, such as a placer gold mine and a gold mine that lies far below the surface. The waste of competition seems to be particularly conspicuous in the case of coal. This may be due in part to certain peculiarities of coal mining; but is probably due in a much larger degree to the extent to which the coal mines have been developed. It must be remembered, moreover, that the market for coal is very extensive and the number of persons interested in producing it is very large; and as a result coal has naturally received a great deal of attention. Even if it be true, however, that the waste is especially

[5] "The Relation of Big Business to Industrial Prosperity with Special Reference to Mining." Report of the Proceedings of the American Mining Congress, Sixteenth Annual Session (1913), p. 401.

great, relatively as well as absolutely, in the case of coal, a little consideration will show that the same principles apply in the case of other minerals, at least where the mines are at all extensive and well below the surface.

There is much reason for thinking that where any considerable proportion of the mines are of this character the business should be regarded as a natural monopoly. Not only does the mine itself ordinarily represent a large capital investment, but the fixed expenses are large. In most cases flood can be prevented only by keeping the pumps at work. Timbers often rot very quickly; and in some cases more quickly if the mine is not in operation than if it is. Galleries may become blocked through the falling of walls or of roofs. Upon the whole, deterioration of a mine, and especially of an idle mine, is rapid. Besides this there are various forms of overhead expense of the sort usually found in a concern where the capital investment is large. While the expenses are largely fixed the demand for the product is in nearly all cases subject to great variation. If the productive capacity of the mines is large enough to satisfy the needs of business in times of prosperity it will be too great at other times. Discoveries, moreover, may lead to the opening of new mines even at times when the business is not particularly profitable. Under such conditions competition, if not in some way restrained, is practically certain to be intense and may even make it necessary to conduct the business at a loss for a considerable period of time. Since heavy expenses continue, even though the mine is shut down or run part time, there is a strong

temptation to keep it in operation and to take only that part of the mineral that can be secured most cheaply.

Oil wells are in many ways similar to mines. Only to a limited extent, however, do the principles that have just been considered apply to them. Some deterioration is, indeed, possible; but the technical conditions under which oil wells are operated are not such as to offer the same temptation to leave a considerable portion of it in the ground. On the contrary, it is likely to be brought to the surface, under competitive conditions, more rapidly than it can properly be cared for; and the result is that a part of it is then, for all practical purposes, destroyed. This, as has already been pointed out, is due to the fact that the wells drilled on the land of different owners tap the same reservoir, and each is interested in getting out as much as he can through the wells on his own land. Much waste can be prevented where there is an able and wealthy organization, such as the Standard Oil Company, that can in a very short space of time put millions of dollars into pipe lines and storage tanks. Even where the waste of natural resources is reduced in this way there is still great waste of the other factors of production through the drilling of unnecessary wells and the making of provision to care for large quantities of the product long in advance of the time when it is needed.

In the case of the forests as in that of mines, only a part of the possible product is ordinarily removed. The part abandoned includes not only timber that might be converted into a grade of lumber sufficiently good for some purposes, but the raw material from which a

number of different commodities might be made. Right here appears a difference between the forests and the mines though it is perhaps a difference in degree rather than in kind. Most of the mineral that is now left in the mine would, if taken out, reach the market in substantially the same form as that which is now taken there; though in some cases where several different kinds of mineral are found together only one of them may now be taken. Part of the material that is left in the forests would be converted into an inferior quality of lumber and part of it into commodities of an entirely different sort. Differences in the prices of the finished forest products, as well as in the expenses of producing them must therefore be considered.

It is probable that the circumstances which tend to give the mines the character of natural monopolies operate with less force in the case of the forests, though they are clearly of some importance. Where bonds are issued by the timber companies interest represents a charge that must be met, and this is a matter of considerable practical importance in the industry. Generally speaking a forest will not deteriorate very greatly and may even be improved if operations are suspended, though there is usually a fire hazard which continues. The equipment will, of course, deteriorate; and in some cases this includes expensive works such as docks and logging railroads. Mines, however, often have similar equipment which is subject to the same sort of deterioration, and in addition to this there is the deterioration of the mine itself. Forestry involves some other kinds of overhead expense, similar in a

general way to those involved in mining. The prices of forest products are also subject to great fluctuation. While however some restraint of competition is probably desirable it need not be as far reaching as in the case of mines.

It is fairly safe to say that competition is of less importance as a cause of waste in farm lands, at least after the country is fairly well occupied, than in most other natural resources. This is not because competition brings about such an adjustment of demand and supply as will assure the farmer of a fair profit each year. As a matter of fact there is considerable speculative element in farming. Not until a great part of the costs of production have been incurred can it be known how large or how good a crop will be obtained nor what the market conditions under which it must be sold will be. The costs of farming, moreover, are in the nature of fixed costs to a much larger extent than is generally realized. So far as the land and a large part of the equipment are concerned, it will cost nearly as much to let them lie idle as to use them. The enterprise and labor power of the farmer and his family cannot, as a rule, be temporarily diverted to some other economic purpose without serious loss. The industry is not one which men may readily enter when it is profitable and readily leave when it is not. When a season is unprofitable so far as a particular crop is concerned the farmer can ordinarily plant less of that crop and more of another in the season following, and it is usually desirable that he should do so. When, however, agriculture as a whole is adversely affected it may be a number of years before a satisfactory ad-

justment is reached. That competition does not, under such circumstances, lead to greater waste than it does must be attributed mainly to the fact that the effects of a use that will exhaust will be quickly felt. Depressed agricultural conditions are doubtless unfavorable to the improvement, and in some cases to the maintenance, of the farms; but the problem of keeping them in good condition is, after all, largely a current one.

§ 6. While competition must be included among the causes of certain great wastes of natural resources it is not always an independent cause. Of more significance, perhaps, is its effect in intensifying the other causes that are at work and, in some instances, in extending their application to natural resources when it would otherwise be limited to one or more of the other factors of production. Large fixed costs and a fluctuating demand, for example, would result in losses under conditions of monopoly, even if that monopoly were wisely and patriotically directed; though it is possible that in that case losses of the natural resources themselves could be largely avoided. Wasteful use of resources is very likely to take place when the user has no property right or similar interest in them, even though he meets with no competition; but under competitive conditions the individual may find wasteful use practically necessary. It is true that competition is itself a cause of some industrial wastes, but they usually take the form of employing labor and capital under circumstances which result in relatively little national good, or in which the good is very largely offset by the evil. In wasteful competition, unaccompanied by other

causes of waste, natural resources are ordinarily involved only to a minor extent if at all.

To say that competition is not an independent cause of waste is not to say that it is of little importance, especially when the removal of the other causes is impracticable. Under some circumstances wastes may be greatly reduced, even though not eliminated by some restraint on competition. Where, for example, fixed costs are important few, if any, are willing to bear a greatly disproportionate share of the losses that the adjustment of output to falling demand would necessarily imply; and some could not do so without becoming bankrupt. At the same time most of them may realize that a reduction of output on the part of all would mean less loss than would a competitive fight in which each made strenuous efforts to secure as large a share as possible of the amount of business available, and would be willing to reduce their output in the same proportion as did the others. The stronger may even be willing to make special concessions to those who are too weak to bear their full share of the burden, especially when the output of the latter is but a small proportion of the whole.

Limitation of output that makes a nation poorer is, of course, highly objectionable; but limitation that is necessary to prevent production at a loss is not ordinarily of this sort. The least costly way of reducing output may be the complete closing down of some of the establishments and the running of the rest at something approximating full time. This concentrates as well as reduces the loss, and naturally none of those in charge of an establishment is willing to have it con-

centrated upon his part of the business. If, however, the others are willing to pay him to be idle for a time the loss will be divided; and this may be the best possible arrangement for all concerned. The same principle applies when the closing down will be permanent. If, as seems to be the case, there are now too many coal mines in operation it may be better to divide the loss of closing some of them among the others than to bring about the abandonment of the poorer mines by competitive fight. Much of the loss took place when the poorer mines were opened; but the amount of cost involved in putting a stop to continued loss depends partly on the methods adopted.

Restraint of competition does not necessarily imply combination or the exercise of any substantial degree of monopoly power on the part of those engaged in the industry concerned. Very important restraints are sometimes imposed by the government, either directly or as an incident to some other phase of governmental activity. The protective tariff is obviously intended to restrain competition, but it does not necessarily mean the establishment of monopoly. The "tax" of ten percent on the circulating notes of state banks is intended to prevent any competition in the issue of banknotes with the national and federal reserve banks, and does so very effectively; but that, of itself, does not give any substantial degree of monopoly power to banks chartered by the National Government. The United States has attempted to limit the competition of the railroads to those forms which it regards as fair, and while it has not been entirely successful much has been accomplished; but it is not this that makes

the railroads monopolistic. The requirement that the Alaska salmon canners establish and maintain hatcheries, to which reference has already been made, was rescinded, apparently because it seemed "an impossible requirement so far as the small packers were concerned." [6] In the fishing industry, however, many regulations are still imposed which necessarily limit competition, at least as regards the forms that it may take. In some cases governmental regulations as to the way in which a business shall be carried on may be sufficient to greatly reduce the wasteful character of competition. In other cases some coöperation on the part of those engaged in the industry seems to be necessary.

Even when combination is permitted unrestrained monopoly is not the only possible alternative to unrestrained competition. Quite apart from governmental regulation, the power of a combination depends very largely on the character of its members and the way in which they are organized. This is a matter which will be considered more fully in connection with enterprise.[7] Here it should be noticed that combinations of one sort or another exist in many lines of industry and are not without their influence, though the result is often far from being complete monopoly. Even in Germany where there are few legal difficulties in the way of combination, the monopoly power of the cartels is far from complete. Generally speaking, the possibility of outside competi-

[6] Report of the Federal Trade Commission on Canned Foods; Canned Salmon, p. 75.

[7] *Infra*, Chapter XIV, § 1, pp. 292-296.

tion must be considered and at all times, in most cases, the members have in mind the fact that the agreement will expire in a few years and a new one will have to be formed or the advantages of combination will be lost. In the case of the Potash Syndicate the power of the Imperial Government was finally exerted to make the combination effective.[8] While, however, the monopoly powers of combination are often much limited, they are commonly very real and should be exercised only under careful governmental supervision.

[8] R. H. Tosdal, "The German Potash Syndicate: A Typical Kartell," *Quarterly Journal of Economics*, Vol. XXVIII (1913), pp. 140-190, especially p. 177; reprinted in Ripley, "Trusts, Pools and Corporations," Ch. XXIII, pp. 795-832.

CHAPTER IX

LAND TENURE

§ 1. CLOSELY related to the institution of private property in land are the conditions under which such property is held and used.[1] Transfers of title may be easy or difficult. Holdings may ordinarily be large or small. The owners may have direct charge of all the work done on the land, they may share the responsibility with others, or they may simply occupy the position of landlords. Where tenancy prevails the tenants, by reason of their character or of the strategic position which they occupy, may hold the land on such terms as will assure them of the benefit of all the improvements they may make and offer them an opportunity for development of which they will take advantage. On the other hand, their character or position may be such that they may easily be oppressed. There is, of course, no one system of land tenure that is best under all circumstances. The conditions that prevail at any particular time are the result of social and economic growth. They may be modified, and the course of future development may be largely directed, by the purposive action of society. Wise modification of them

[1] For an excellent article which deals largely with inefficiency in agriculture in eastern Europe, and the reason for it, see Durand, E. Dana, "Agriculture in Eastern Europe," *Quarterly Journal of Economics*, Vol. XXXVI (1922), pp. 169-196.

is one of the means by which industrial efficiency may be increased.

Under American conditions ease in the transfer of title to land is, upon the whole, favorable to efficiency. In many countries, of which the United States is one, land is desired chiefly for the economic use that can be made of it. Ownership gives but little in the way of other advantages, such as social prestige or political standing. As a result natural resources tend to fall into the hands of those who can make the most profitable use of them. It is true enough, as has already been pointed out, that the ability to make large profits is a very imperfect test of efficiency. Certain kinds of natural resources are occasionally acquired for the purpose of establishing or retaining monopoly; and while this generally implies conservation of a certain sort, it does not imply efficient use. More frequently, perhaps, natural resources are acquired by those who make large profits through the use of unfair methods of one sort or another; and while the ability which most eminently successful concerns possess, whether their methods are legitimate or not, is likely to result in efficient use there is no guarantee that it will. In such cases as these, however, the remedy would seem to lie in dealing with monopoly and unfair methods directly rather than in making it difficult for legitimate, as well as illegitimate, concerns to secure the natural resources on which their business must depend. So far as farming land is concerned the opportunities for illegitimate profit are comparatively few; and profits are, upon the whole, a better index of efficiency than they are in connection with most other natural re-

sources. In all cases, however, there is the possibility that resources will be acquired by those who will make a wasteful use of them from the national point of view, however profitable it may be from their own. Ease of transfer may be helpful in securing efficiency, but alone it is not enough.

What size holding is best depends very largely on the nature and amount of administrative ability available, the character of the most effective methods of exploitation that may be used under the circumstances, and the extent to which markets are available at reasonably profitable prices. Obviously there are important differences between different kinds of natural resources. Mines and forests, for example, generally require relatively large holdings. Farms should be much less extensive. Building sites are relatively small in area though they may be highly valuable. Generally speaking as far as transfers of title are easily made and the control of resources is desired only for economic purposes little or no regulation by the state is needed. As a result of natural selection holdings will tend to be of the most efficient size. Even here, however, there are some exceptions. In certain cases an owner may increase his holdings for the purpose of acquiring monopoly power. In others a small holding may possess a "nuisance value," and the owner may retard progress by holding out for an unreasonably high price. Instances of this sometimes occur in cities where a large site is desired for an important building and the acquisition of a number of adjoining lots is necessary for the purpose. It should be recognized also that even in the United States land is sometimes

desired for non-economic reasons, and there are cases in which holdings are larger than is desirable in the interest of efficiency.

Governmental action designed to affect the usual size of holdings does not necessarily imply any serious departure from the principle of private property in land. It is true that the right of ownership, which it must be remembered is never absolute, may thus be limited, but within the limits set the right may receive full recognition. The ancient statutes of mortmain, for example, were designed to prevent a certain type of concentration of ownership. Statutes against monopoly may have a similar effect. The laws in regard to inheritance may favor large holdings, as in England, or small holdings, as in France. Taxation as a means of regulating the size of holdings has been strongly advocated, and in a few places has been used for this purpose. The object of these different kinds of regulation has generally been political or social rather than to secure efficient use, but they have a very important effect on efficiency. Regulations, for example, which give a large number of people an interest in the soil and tend to equalize opportunity are likely to increase efficiency, provided that they do not result in holdings so small as to make impracticable the scale of production which, under the conditions of the time, would be most effective. Carried too far they may retard industrial progress and eventually be injurious to the class of people they were intended to benefit. As has already been suggested, special regulations under the conditions of the present time in the United States, are not ordinarily needed. Where, however,

they are designed to deal only with the abuses that sometimes arise they may be fully justified.

§ 2. A special type of regulation is to be found in the conditions under which parts of the public domain are allowed to pass into private ownership. This is of great importance in the United States where the public domain included, until comparatively recent times, a large proportion of the natural resources of the country, and still is extensive. Since about the middle of the nineteenth century two main lines of policy have been followed in transferring land to private ownership: large grants have been made to the railroads as compensation for opening up the country; and relatively small grants have been made to individuals, either at a low price or on condition that the land allotted be developed. It was doubtless expected that most of the land given to the railroads would be sold by them in relatively small blocks as soon as purchasers could be found at rather moderate prices. In a great many cases this has not been done; and as a result there are some enormous holdings, especially of forest land. So far as the forests are concerned the evil is much less than it probably would have been had the attempt been made to dispose of such lands in small sections, for large holdings are necessary for efficient operation. Most of the land given, or sold at a low price, to individuals has been farm land, and here a general attempt has been made to adjust the normal size of the holding to the ability of the typical settler to make good use of it. Mineral lands have been disposed of in larger tracts, but these have not, as a rule, been very large.

In all cases regulation of the size of the holding by the conditions on which the original grant is made is, in a sense, temporary, since after the title to the land has passed to a private owner he may sell it in whole or in part, and large holdings become possible through the combination of those that are smaller. Frequently, however, the effect of the original method of distribution may be appreciable for a long time, and in many cases it may be regarded, for practical purposes, as permanent. Natural selection works slowly, and what it will do at any particular time depends partly on the conditions then existing. Putting it in somewhat different terms, the development of society is a matter of growth. What features shall characterize any particular stage depends, in a large measure, on what have characterized the stage immediately preceding it. The conditions on which natural resources pass into the hands of private owners must, for this reason, be counted among the factors which determine the lines along which growth shall take place. Doubtless mistakes may be corrected through the purposive action of society or through the automatic working of other natural forces; but such correction takes time and effort. The wisdom of the policy adopted at any particular time may, therefore, have an important effect on the future strength or weakness of the nation.

§ 3. It is commonly assumed, in discussion of the relative merits of the exploitation of natural resources with the labor of owners, of tenants, and of employees, that the best results will be secured by the first of these methods when the conditions under which the work is done are such as to make it practicable. Discussions

of this sort deal chiefly, if not exclusively, with farm lands, for it is recognized that large business units are required for the effective exploitation of most other kinds of natural resources. In the case of mines and forests, for example, corporate organization is the rule, and most of those whose services take the form of labor are, and must remain, employees. It is true that the employees of a corporation might own all of its stock, and in that case they would collectively be the owners. Under certain conditions this would be very favorable to efficiency,[2] but it is a very different thing from individual enterprise. What is no less to the point, cases in which anything of this sort is practicable are decidedly exceptional. In farming, however, individual enterprise is the rule. Even on relatively small farms some hired labor must ordinarily be employed, especially during the harvest season, but the work of the farmer is substantially similar to that of the hired men though he has some authority and responsibilities that they have not. The significant thing, however, is not that some hired labor is employed but that, so far as the conditions under which the work is done are concerned, the farmer may own or rent his land and the farm laborer may become an independent farmer.

The advantages which may be expected, under favorable conditions, from a system under which a large proportion of those who work on the farms own the land they cultivate are very great. Farm land can be exhausted through misuse. It can be improved through the wise expenditure of capital upon it. Indeed, a

[2] Cf. Chapter V, pp. 122-123.

farm practically always represents the investment of some capital; and this can be destroyed. How the farm will be used depends very largely on the active farmer. If he is the owner conservation and improvement are ordinarily to his advantage; and if he is the right sort of a man he will realize the fact. The feeling of ownership commonly has a psychological effect which is decidedly favorable to efficiency, not only as regards the farm and its equipment, but as regards the labor and enterprise of the farmer. Besides this the independent position of the landowning farmer and the fact that he has a stake in the country tend to make him a more desirable citizen than he would otherwise be. This advantage may be so great from a national point of view as to justify some sacrifice of economic efficiency; though under the conditions existing in most parts of the United States ownership is likely to react on the character of the farmer in such a way that no sacrifice of the kind would be implied.

So far as economic and social effects are concerned it is sometimes difficult to draw a sharp line between complete and qualified ownership. A mortgage on the land gives an equity in it to the mortgagee which, depending on circumstances, may result in lowered efficiency on the part of the farmer, or in increased efficiency through the stimulus which the possibility of paying off the mortgage may give. A tenant may hold under a lease that has still a very long time to run and the contract rent may be substantially below the economic rent with a high probability that it will remain so. Leases of this sort are doubtless unusual, at least in the United States so far as farm lands are con-

cerned, though they can often be found in other cases. A farmer, however, who held under such a lease would be in much the same position, in important respects, as the owner in fee; and many of the advantages of complete ownership would be obtained. The significant thing is that he would have recognized rights to the land which would be distinctly valuable, though it is probable that they would not be quite as effective as complete ownership. The fact that some rent would have to be paid, even though it were not the full economic rent, would mean that his interest in the land was less than if he had complete ownership and might well have an unfavorable psychological effect.

Farm tenancy, as it usually exists in the United States, however, is not of this sort. There is ordinarily no long term lease, readjustments of rent may commonly be made at relatively short intervals, and there is no assurance that the tenant will get all the benefit of any improvements that he may make or that he will suffer the losses due to the deterioration of the farm under his management. As a result the owner must ordinarily be something more than a landlord. In practically all cases he must exercise care in the selection of a tenant. Sometimes he can protect himself from loss by the terms of the lease on which the land is let; but even then some supervision on his part is usually necessary. Commonly he must provide for the improvements; and sometimes he even furnishes the working capital in whole or in part. The tenant is ordinarily in a better position to conserve and improve the farm than is the landlord; but he has not as strong a motive. Where tenancy is a step towards

ownership the disadvantages may not be serious, since the tenant is likely to have much the attitude of an owner, both as regards farming and as regards his place in society, if not as regards a particular piece of land. Where such a farmer expects to buy the farm on which he is a tenant, especially if the terms have already been settled, no disadvantage whatever, so far as efficiency is concerned, may arise from the fact that he is a tenant. Where, however, the man who has the capacity to become a high grade independent farmer knows that he has little chance of acquiring a farm of his own much is likely to be lost, both as regards his own labor and as regards the land on which he works. More than this, where the conditions are such that a case of this sort is typical it is less likely that a class of high grade farmers will be developed.

§ 4. From an economic or a social point of view it is in some cases difficult to distinguish between the employee and the tenant, just as in some other cases it is difficult to distinguish between the owner of the fee and the owner of a leasehold. Where the landlord provides practically all the capital used, including such things as livestock, seeds, and tools, and supervises the work carefully, it is he, even more than the tenant, that is the enterpriser. In fact, the salaried manager of a large farm may have more independence and responsibility than such a tenant, and may even have a greater interest in the permanent success of the enterprise. His interest, perhaps, is not as great as it would be if he owned the farm, and of course much of the work must be done by men under him whose interest is even less than his. Under certain conditions

the advantages of large scale production, which make ownership by the cultivator impracticable, may more than offset the advantages of such ownership. Generally speaking, however, this is not the case in the agricultural industry today; and so far as the conditions of production are concerned there is no need for a system in which the great mass of those engaged in farming must remain in the position of employees all their lives. This being so, a system in which the prevailing tendency is for the cultivator to own his farm is the most favorable to efficiency, provided only there are a sufficient number of men who have the qualities necessary to make them successful independent farmers.

Right here is an important consideration which is sometimes overlooked.[3] The independent landowning farmer is not only a laborer, but an enterpriser, a capitalist, and a landlord as well; and he must be able to perform the functions of each of these. Partly because the industry is one which is suitable for small scale production the demands made upon him as enterpriser, capitalist, and landlord may not be very great, but they are substantial. As enterpriser he must know what to plant, when to plant it, and how to deal with the various problems that arise in connection with farming operations. He must be able to pass judgment on all that is done and to assume responsibility.

[3] It is not always overlooked. A fuller exposition of the general idea here set forth may be found in an article on "Tenancy in an Ideal System of Landownership," by Richard T. Ely and Charles J. Galpin, in the Proceedings of the Thirty-First Annual Meeting of the American Economic Association, *American Economic Review*, Vol. IX (1919), March Supplement, pp. 180-212.

As capitalist he must have foresight and the will power which saving requires, and as a practical proposition must not only make full provision against depreciation for all farm equipment, but must plant his crops and care for his lifestock in anticipation of a return that can be received only in the future. What is, perhaps, the chief function of the landlord, using the term in its strictest sense, is to see that the land is put into the hands of one who will use it well. Since the land-owning farmer is his own tenant, his ability as a landlord really depends on his ability as a representative of the other factors of production. From one point of view this may appear to be equivalent to saying that he has no real functions as a landlord; but his ability to be a landlord—that is, his ability to remain the owner of the farm—depends on his ability to perform the other functions well.

Not all men possess these different qualities in a degree that would enable them to become successful independent farmers, however easy it might be for them to acquire the necessary land. In some cases the reason is, in all probability, to be found in their innate character. It is highly doubtful, for example, that any very considerable proportion of the American negroes have the necessary capacity. In many cases they will live quite as well as employees or as tenants under a large degree of supervision as they would if they owned the land and were left to their own devices as to its use. Where, under such circumstances, something is left for the employer or the supervising landlord, it means that either harder or more efficient work has been done; and whichever it may be the land

has been made to yield a larger product. What is true of a large proportion of the negroes is true of some white men.[4] There are many who have lived on a farm all their lives, and have had, so far as can be judged, much the same experience as their more successful neighbors, but who can never have any large measure of success as independent farmers. They may, however, do good work under more or less supervision. In a few cases no more may be necessary than the enforcement of the terms of a lease, though usually more supervision than this must be provided. Often men of this type remain farm hands all their lives, or drift to the cities where they work under supervision in some other industry.

The inability of a man engaged in agriculture to become an independent farmer does not always imply innate lack of capacity on his part. In some cases his powers may be latent, due to the fact that his previous experience has not been such as to develop them. In other words the difficulty may be primarily educational, though the sort of education most needed may not be that which can be given in the schools, but rather that which comes from social and economic environment. The problem is largely one of the development of enterprise, but it is particularly conspicuous in the case of the farmer because agriculture is commonly conducted on a small scale and the landowning farmer

[4] Owing to better methods of production ". . . prewar statistics show yields per acre for the large estates greater, in every section of Russia, than those of peasant farmers, the difference in most cases being from 10 to 20 per cent." Durand, E. Dana, "Agriculture in Eastern Europe," *Quarterly Journal of Economics*, Vol. XXXVI (1922), pp. 190-191.

represents all four of the factors of production. It should be noted that an environment in which the farmers commonly own their farms is itself one of great educational value, and, quite apart from its immediate effects, arrangements which make it practicable for the able farmer to own his farm are among the factors favorable to efficiency in the long run.

Another difficulty in the way of the acquisition of a farm, even by the able farmer, is economic. With the growth of population land values tend to rise, and with industrial development a larger amount of capital must be invested in farm equipment. It is largely to this cause that the growth of farm tenancy in the United States is to be attributed. The rise in the value of land, however, means that the land is becoming more scarce relative to the need for it; and consequently it is of increasing importance that it get into the hands of those who can make the best use of it. Generally speaking, the man who can make it most productive is the man who can pay the most for it; and any system which forced down the value of the land would make the selection of those who were to use it less exacting. Such a plan as that embodied in the Federal Farm Loan System does not have this fault, for it is still the best farmers who can best meet the semi-annual payments. Improving the credit system so that the farmer can more easily secure capital, as is true of the farm loan system where the mortgage is granted for the acquisition of land or the making of improvements, has a double advantage, for it helps to stimulate the accumulation of capital by those who are able to do so, and to put it into the hands of those who

can use it well. The fact should be recognized, however, that the growth in the value of land and in the amount of capital needed means that the functions of the farmer as landlord, capitalist, and enterpriser are becoming of more importance and unless he can rise to meet the responsibilities implied these functions must be more largely performed by someone else.

§ 5. There are cases in which special action by some governmental agency is desirable for the development of national efficiency with reference to natural resources. One of the best examples is furnished by large reclamation projects, such as irrigation or drainage. "Waste land" that can be made productive is a possible source of national strength whenever the need for more land becomes pressing. In a great many cases, however, projects of this sort are not such as to appeal to private enterprise, at least without a substantial degree of government coöperation. Holdings must often be exceedingly large, or at least the owners of all the holdings affected must act as a unit. Governmental rights must often be exercised in connection with the supply of water for irrigation and in connection with the building and maintenance of canals and ditches. Moreover the reclamation works, after they are erected must be maintained, and for this continued unity of action is desirable if not necessary. One of the most common methods of dealing with the problem is the formation of an irrigation or drainage district, having authority, though not necessarily unlimited authority, to assess those within its boundaries. In some cases a larger governmental

agency may undertake the work directly, later selling the reclaimed lands.

There are some cases in which direct governmental activity is desirable to prevent the loss of natural resources the exploitation of which may properly be left to private enterprise. The forests, for example, are subject to a serious fire hazard. The government is amply justified in enforcing stringent regulations as regards the use of fire by all who enter them, including even the owners. It may properly employ men to detect a forest fire at the earliest possible moment and to extinguish it or, if that be impossible, to limit the area that it will cover. This, unless the holdings are very large, can usually be done best by some central agency. The expense, or at least a large share of it, may legitimately be assessed against those whose interests are directly affected.

It is sometimes said that since fire protection is undertaken in the interest of the public at large the expense should be defrayed out of general taxation. The effect of such protection, however, is normally to increase the value of privately owned resources to their owners. Most of the benefit which the nation as a whole receives accrues to those owners in the first instance. The special taxes involved are largely in the nature of insurance fees. Where, as is possible, the protection given is worth more than it costs from a national, but not from a private, point of view some contribution, other things being equal, may properly be made from general taxes. The value of protection to the owners, however, is so great that the contribution justified is likely to be small. To the conten-

tion that the costs of fire protection in cities are commonly defrayed out of general taxes it may be replied, not only that if the principle is wrong it should not be extended, but that, as a matter of fact, the taxes out of which such expenses are defrayed are usually local taxes, and in very large part are ordinarily levied on real estate. It is not proposed that the expense of dealing with the fire hazard in forests should be determined for each holding and levied upon the owner. The principle of taxation may still be applied, but this includes the determination of the class of persons who shall be subject to the tax.

Activity of the government in dealing with the fire hazard in forests is but one example of the application of a general principle. Another is the maintenance of fish hatcheries, to which reference has already been made. The loss of natural resources is a serious evil from a national point of view, and the nation has a right to prevent it by regulation or by directly undertaking work of the sort that would ordinarily be left to private individuals. The costs of such action may reasonably be regarded as among the costs of that particular industry.

One phase of governmental activity which touches practically all industry is taxation. It is obviously necessary that the government secure large revenues for itself and, at the present stage of civilization taxation is the chief means by which this can be done. While taxation is practically always a burden it does not on that account necessarily lead to less efficient methods of production. At the same time, unsound methods of taxation may be an important factor in

causing waste of natural resources. Generally speaking, when annual taxes are levied upon exhaustible resources the total amount that must be paid can be reduced by hasty exhaustion. Annual taxes laid on mines or forests without reference to the current income, for example, encourage the prompt removal of the mineral or the timber. They constitute economically one of the fixed charges that are so important in these industries. Forests can, indeed be replaced, but to tax annually a crop that takes half a century or more to grow is very likely to mean that the amount paid in taxes must be accumulated at compound interest in calculating the amounts that must finally be received if the industry is to pay. In the case of farm land, where the crop is an annual one, it makes much less difference whether the land and the crop are themselves taxed or whether the tax is laid on the return actually received. Unless the tax is a very burdensome one it will not have very much effect in preventing the proper maintenance of the farm.

It is not argued, of course, that natural resources are not proper subjects for taxation. They are very decidedly proper subjects; but if taxes, which are a current expense, are to be laid according to the principle of ability to pay, they should be laid according to current income. Doubtless taxation may be used as a means of regulation rather than of revenue; but generally speaking the difficulty that arises when a tax is used for two purposes are somewhat the same as those that arise when a man attempts to serve two masters. One or the other purpose is likely to be very badly served. The difficulties that are here under

consideration, however, are not ordinarily the result of an attempt to serve more than one purpose, but are due rather to the unsound principles on which the tax is laid, and especially to the failure to conform to recognized canons of taxation.

CHAPTER X

THE INCREASE OF SAVING

§ 1. As has already been pointed out, capital though essential to any large measure of industrial accomplishment, is a secondary factor in production. Capital goods are themselves products of industry, and consequently waste of them ordinarily implies waste of all of the factors of production. At the same time there is one productive function which is peculiar to the furnishing of capital. This has to do chiefly with "saving," or "waiting;" and attention will here be given primarily to this function, and to matters closely related to it, rather than to the goods in the production of which it plays a part.

The saving of capital is not, of course, something that is done once for all. Capital goods wear out, and in this sense are consumed; but so far as industry is successful the amount of wealth which they represent changes form with some increase. Proper financial administration of a business normally requires that full provision be made for the maintenance of all capital; and this implies that a part of the gross earnings must be made to take the form of capital goods. That maintenance is a form of saving is most obvious in the case of a depreciation reserve, which is simply the name formally given to the amount of earnings

that is set aside, or reserved from distribution out of the earnings, to make up for the loss of capital goods. The principle is in no way altered by the fact that the "reserve" appears on the liability side of the account, the actual wealth often being distributed among the assets. If dividends are paid without adequate provision being made for maintenance they may properly be said to be paid out of capital; but the fact that dividends can be paid out of capital means that consumption is an alternative, so far as the amount of wealth that they represent is concerned, to saving.

While consideration is here given primarily to saving rather than to capital goods, a few words may properly be said about the latter. Plant efficiency, whether the term be broadly or narrowly used, is now recognized as a subject for scientific treatment; and some important studies have been made, both by men connected with particular industrial establishments and by independent investigators. Most of these studies are technical in character, dealing concretely with capital goods: the forms that are most desirable and the ways in which they should be used. Many of the applications of natural science to industry fall under this head. So do some of the studies of the material and equipment that are best for particular purposes, the internal arrangements of the plant, and its geographical location. Even the choice of a shovel for the use of a particular type of workman doing a particular type of work involves, in a very important sense, a problem of the efficiency of capital goods. It is obvious, however, that more than the efficiency of capital is involved. A wise selection of capital goods indicates

efficiency of enterprise, and the use of them will result in greater efficiency of labor. While the point of view from which the subject is here considered is somewhat different, the value of such studies should be recognized. Though usually made with special reference to private gain they are of great national significance.

Efficiency has received less formal recognition with reference to the financial phases of the subject; though some valuable studies have been made that need but little modification to bring out clearly their relation to it. Some of these have been made with special reference to the welfare of the very poor, the point of view being chiefly that of the welfare of individuals. Some have been made by business concerns which wished to secure capital for their own use or to transfer it to others for a consideration. Here efficiency is commonly sought, but it is chiefly efficiency from a private point of view. In this case, however, the private and the public points of view have much in common. A very important phase of the whole subject which, unfortunately, seems to have received but little scientific attention is the psychology of saving.

The interest of the owner of capital is to be found almost entirely in the safety of the principle and in the economic return. Capital, as such, has no rights that need be considered,[1] but it is well to remember that capitalists have. In this connection it should be noticed that some writers, especially those trying to make an emotional appeal, speak of "property rights" as dis-

[1] That cruelty to animals is wrong may, of course, be admitted; but it has little bearing on the problems here under consideration.

tinguished from "human rights." When used in an argument this generally involves a begging of the question; for what are called property rights constitute one form of human rights, though not necessarily the most important. They are not the rights of property, but the rights of men to property.[2] The rights of capitalists are implied by the human institution of private property, at least in its present form; and the proper determination of these rights and respect for them have an important bearing on the creation and use of capital, and so on the welfare of men.

In considering the furnishing of capital to industry attention may properly be confined to a few of the most general aspects of the subject. These fall into three groups. The first has to do with the creation of capital. The second deals with the putting of capital into the hands of those who can use it well, where, as is often the case in modern industry, the owners and users of capital are not the same persons. The third is concerned with the protection of the owners of capital, especially where they are not directly responsible for its use. As will appear in the course of the discussion, the problems in each of these groups, while fairly distinct, are sometimes closely related to each other.

§ 2. Increased production or increased efficiency in consumption unaccompanied by a decrease in production makes larger the amount of wealth available for saving. This may make it easier to save, in the sense that less will power is necessary for the accumulation of a given amount of capital, and in so far make

[2] Cf. Carver, "Principles of National Economy," p. 113.

saving more efficient. The effects in this respect, however, may be insignificant. The desire to spend, which must ordinarily be overcome before saving can take place, may apply with practically undiminished force to any increase in the amount of available wealth, above that required for urgent necessities. Increased efficiency in consumption makes possible more leisure and less production without any lowering of the standard of living. In much the same way advantage may be taken of any increase in productive efficiency by greater leisure rather than by greater wealth. While, however, increased efficiency in production or in consumption is not, of itself, sufficient to insure increased efficiency in saving, it is among the circumstances that may contribute greatly to it.

If efficiency in saving were the sole object of human society, as represented by the nation, or were the sole means by which its objects could be advanced, it would doubtless be well to put income as largely as possible in the hands of the most efficient savers. It is not, of course, the final object at all, nor is it the sole means. Increased efficiency in saving might unquestionably be secured at an excessive cost in other directions. It is probably true, for example, that the rich can save more easily than the poor; and if this be so, increased saving, without increased cost so far as saving alone is concerned, might be secured by methods which would result in greater inequalities in the distribution of wealth than now exist. What would be the best distribution of wealth, however, is a very large subject; and one to which little attention will here be given. Some things that bear upon it have been

said, or implied, in other parts of this work.[3] For present purposes it is sufficient to note that in so far as distribution is based on contribution to production, success in saving and investment gives additional power for the increase of capital.

Increased motives for saving, whether as a result of larger rewards for the individual capitalist or a higher appreciation on his part of the rewards that can be obtained, will normally lead to a greater accumulation of capital. This may be exceedingly desirable, both from an individual and from a national point of view, but it is not necessarily a matter of efficiency. In this respect it is analogous to an increased output on the part of the laborer as a result of increased motives for hard work. Doing what one wishes to do doubtless involves less expenditure of energy than doing the same thing when one does not wish to do it. In so far as this is the case increased motives for saving may result directly in some increase in efficiency, though the increase in the expenditure of energy to which they lead is likely to be of more importance. Indirectly through their influence on the development of thrift their effect on efficiency may be of much greater significance.

Thrift, so far as it implies the development of habits of saving or the ordering of one's affairs in such a way that saving is made easier than would otherwise be the case,[4] is distinctly a matter of efficiency. Habits of saving are in many ways analogous to skill in labor,

[3] Especially Chapter V, § 5, pp. 101-105.

[4] Thrift is often spoken of as though it had to do entirely with saving. It is, indeed, opposed to extravagance, but it may imply various forms of wise expenditure as well as saving.

for they make possible the accomplishment of a given result with less expenditure of energy. The development of such habits is one form of the development of human powers. A wise ordering of one's affairs with reference to saving is analogous to a manner of living on the part of the laborer that will give him the strength and vigor that he should have. The thrift movement, therefore, in some of its aspects, contributes in an important way to efficiency in saving.

§ 3. Motives for saving and habits of saving are partly dependent upon individual and partly upon social considerations. Foresight and will power, which are among the chief human conditions of saving, are individual qualities; but the things which a man desires for the future, as well as for the present, are largely dependent upon social ideals; and for most persons it requires less will power to drift with the social current than to move in a different direction or at a different rate of speed. Again, opportunities for safe investment which are, generally speaking, beyond the control of the individual saver, make saving better worth while; for the present value of a given future income is greater when that income is reasonably certain than when it is highly doubtful. Putting it somewhat differently, the risk that the proper rewards for saving may not be secured should be reckoned among the costs; and they have an adverse effect on the wisdom of saving. So too must the difficulty of finding good opportunities, even when such opportunities exist, be reckoned among the costs. Doubtless great risks must be taken if industry is to be even moderately progressive; but some men are less qualified for the taking

of these risks than are others, and where it is difficult or impossible for a man to discover those ways of using capital for which he is best qualified there is not the encouragement for saving that there should be.

Education of the individual is one of the means by which the amount of saving can be increased and the cost of saving reduced. It is a proper function of education to bring out the innate powers which the individual possesses and to give him a better appreciation of the ways in which wealth can be wisely used. This method has been adopted with some success in attempts to improve the condition of the very poor. It can be, and to a certain extent is, used in the schools. Apart from its direct effects on the foresight and will power of the individual, education helps to awaken the critical faculty, at least in many minds in which it would otherwise lie dormant, and so weakens the tendency to follow blindly the prevailing social ideals. Under present conditions these are favorable to large consumption as a form of social emulation. Consumption is, indeed, the proper end and aim of production, but in so far as it is merely competitive it is, for the most part, wasteful. Not only must the sacrifices and disappointments of those who are not successful be set against the enjoyment of those who are; but there would be very little loss to anyone if the amount of wealth thus consumed were less, the proportions remaining about as they are.

It is doubtless true that competitive consumption has itself some educational value. For the great mass of people, who cannot depend on inherited wealth, it makes large production a condition of success. It

is thus favorable to the establishment of habits of production and to the discovery of new methods that will make production more effective. In America, at least, it has upon the whole been favorable to the personal participation in industry of men of wealth and ability. There would, of course, be little advantage in this if all the results of increased production were wastefully consumed. As a matter of fact it would seem fairly clear that a considerable proportion of them are wisely utilized. The general increase of production benefits those who will make good use of wealth as well as those who will waste it. It seems probable also that saving is increased even among those who are inclined toward extravagant consumption, partly because personal participation in industry gives them a greater interest in it than they would otherwise have, and partly because increased capital is a condition of increased production which, in turn, is a condition of increased consumption. They may spend much more but they save some more. Quite aside from this, there is a considerable national advantage in increased productive power, for it furnishes a reserve of strength which can be utilized in an emergency sufficiently great to justify extraordinary restriction on consumption and a basis for greater national strength and welfare, even under ordinary conditions. While, however, some net advantages may result from competitive consumption as a social ideal they are obtained at a very high cost.

While something can be accomplished by the education of the individual, even so far as it affects him alone, it must be carried far enough to affect social

ideals if the greatest possible increase in the efficiency of saving is to be brought about. Social ideas exercise a powerful influence upon the individual and, upon the whole, it is desirable that, for the vast majority of men, they should. Blind conformity is, of course, inconsistent with progress; but a certain amount of social harmony is needed, and this is ordinarily inconsistent with complete individual independence of thought and action. Education of the individual, since it affects a member of society, has some social effect; and when the individuals concerned are leaders or their numbers are large the social effect may be great. Such education as can be given in the schools, though not without importance, is far from sufficient to give the best results. In the first place it can deal, at any one time, with but a relatively small part of the population, and that part not particularly influential. It is true that the children of today will make up the most influential part of the population in the not distant future; but in the meantime they are subject to powerful influences which are often unfavorable to thrift. In the second place, foresight is ordinarily a quality that should be based on observation or experience, and this calls for a greater degree of maturity than most of those in the schools possess. Important as the education of the young is, influences which act directly upon those who control most of the income received from industry are probably of even more importance in this connection. Such influences are brought to bear by corporations which need capital and must appeal to the public for it, as well as by a great variety of financial middlemen. They are

brought to bear by financially sound corporations which endeavor to interest employees and customers in the purchase of their securities. At times they have been brought to bear directly by the government.

A national debt, as such, is not ordinarily a national blessing. The purpose for which a national debt is incurred may be wholly good, and even war, which is the chief source of national debts, may sometimes by justified as the less of two evils. Comparatively few things in this life are wholly bad, and even in a national debt incurred for war some good may be found. There is little reason to doubt that one of the few beneficial economic effects of the Great War was an increase in the practice of saving on the part of the American people, and of other peoples as well. The Liberty Bond campaigns resulted in the purchase of those securities by many people who had not previously known what a bond was and who had saved very little. Under the conditions of the time the amount of will power needed for the saving which such investment implied was less than under ordinary conditions, though undoubtedly considerable sacrifices were made. The wealth which the government secured by means of the bonds was, of course, for the most part, destroyed; but the purchase of the bonds represented savings, so far as the purchasers were concerned, and much of it was wealth that would otherwise have been consumed with little permanent benefit to the consumers. It is doubtless true that in many cases the effect was temporary, and no permanent change took place in the attitude of those concerned towards saving. Such indications as are available,

however, very strongly suggest that the effects were, upon the whole, considerable. There can be little doubt that the bond business has greatly increased. At the same time the average sale of bonds by a bond house has become considerably smaller. There is today a large demand for bonds of lower denominations than were at all common before the Great War. It is impossible to speak with confidence as to the significance of such facts as these, but they point to a substantial increase of saving and investment by persons of moderate means.

§ 4. There are probably very few honestly and ably managed financial institutions that do not either make the accumulation of capital easier or its use more effective. Many of them do both, though some of these are more commonly thought of in connection with the first and some in connection with the second. Institutions that are concerned with the accumulation of wealth must ordinarily guide or direct its use; and on their success in this their power to stimulate accumulation is largely dependent. Institutions that can use capital well naturally wish to encourage its accumulation. While, however, the close relation of the two phases of the subject should be recognized they can best be considered separately.

Conspicuous among the institutions for the development of thrift among the people are the savings banks, both private and governmental. Generally speaking, they are specially designed to serve people with small incomes, though they are used to some extent by others. Frequently, at any rate, among those of the trustee type, the maximum amount that any one may have on

deposit is limited, and in practically all types of savings banks the deposit of small amounts at a time is encouraged. In many cases stamps, coin cards, and small "banks" that can be taken home are used to aid in the saving of still smaller sums. The attention given to small amounts is significant for efficiency in at least two ways. In the first place, there are many persons who can definitely set aside a few dollars or less at a time who lack the power to save as much if a larger sum must be accumulated before it can be definitely marked as savings. Once a deposit is made its withdrawal ordinarily implies a deliberate decision on the part of the depositor. The principle probably applies to everyone; though there are some who can save larger amounts to whom the setting aside of a few cents, or even a few dollars, at a time would be an intolerable nuisance. In the second place, attention to small amounts tends to develop habits of saving. From a national point of view it is desirable that savings banks be made available in every community; and this is one of the strongest arguments in favor of a good system of postal savings banks.

Insurance companies are likewise important instrumentalities for the accumulation of capital. This is most obvious in the case of life and disability insurance, the primary function of which is to provide an income, or at least a fairly large lump sum, for the beneficiary. Even if the principal be eventually consumed there is temporarily some saving. Much the same thing is true in the case of property insurance, though here the primary object is to replace unavoidable losses of wealth, rather than to substitute income

from capital for income from personal activity. Practically all forms of insurance imply the regular setting aside of definite sums as opposed to their prompt consumption; and this is saving as far as the individual is concerned. Besides this, the total amounts collected and invested in industry by the insurance companies are very great. The endowment life insurance policy contains an element of saving very similar to that which takes place through the savings banks with the additional feature that the payments made by the insured must show a substantial degree of regularity. Largely for this reason they tend to be thought of by the insured as a part of his normal necessary expenditure, and the making of provision for them requires less exercise of will on his part than the saving of sums that are more apparently available for consumption. To what extent insurance tends to develop habits of saving, beyond what is necessary for insurance itself, it is difficult to say; though its influence in this respect is probably great.

Commercial banks are more conspicuously concerned with the use of capital than with its accumulation. Their deposits are largely the result of loans made by them, and even of the cash deposited a large part ordinarily consists of funds that are already employed in business and would be so employed even if the banks did not take care of them. There are several respects, however, in which commercial banks contribute to efficiency in saving. Even when they do not receive "savings deposits" bearing a special rate of interest and subject to notice of withdrawal, they perform some functions similar to those of savings banks, though

they ordinarily appeal to a different class of persons and the items handled by them are generally larger. There are many persons who find it easier to refrain from drawing a check than to refrain from spending actual cash which they have on hand. The financial advice which the banks give to their customers and the conditions under which they advance credit are probably of more importance. In some cases the result may be simply greater efforts in saving; but the influence of the banks is favorable to the establishment of business habits and customs as a result of which investments are maintained, and even increased, very largely as a matter of course.

Dealers in bonds, mortgages, stocks, and the like may seem, at first glance to appeal almost entirely to those who have control of savings already made. Salesmanship, however, does not consist merely in bringing opportunities to the attention of those who are already interested, or even in inducing them to buy from one concern rather than from another. It includes also the creation and development of demand. Dealers in securities compete, not only with other dealers in securities, but with dealers in goods of all sorts, especially those who handle luxuries. So far as they cause people to have a better realization of the importance of saving to themselves and lead to the making of greater sacrifices in order that it may be accomplished the question is not one of efficiency; but so far as they familiarize people with investments and with certain kinds of speculation, and make the use of wealth for such purposes a natural thing efficiency is increased.

§ 5. There can be little doubt that the sole ownership of an industrial enterprise is favorable to saving on the part of the owner. It not only strengthens the motives for saving, but the identification of the business with the man gives him an interest in it that makes the expenditure of wealth on the business similar in many ways, so far as his personal satisfaction is concerned, to the expenditure of wealth for his own consumption. In a sense it *is* consumption without being any the less production on that account. In so far as this is the case it increases efficiency in saving. Generally speaking, the same principle applies, though in a less degree, to the partnership or the close corporation. It may not be totally absent in the case of those who hold the controlling interest in a great corporation, but is likely to be of relatively small importance.

For this reason it may seem that large scale production, with its ordinary implication of the great corporation, has an adverse effect on efficiency in saving. Doubtless it has, so far as certain persons are concerned; but there are many people who are in a position to save who could not successfully operate businesses of their own, even if production could be effectively conducted on a fairly small scale. Among these are persons who have a high capacity for labor of a specialized sort and those who do not take an active personal part in industry. The great open corporation, when properly conducted, makes investment in industry practicable for more persons than would a number of relatively small, closely owned concerns, whether incorporated or not, having the same aggregate output, unless, indeed, the scale of production were

exceedingly small and the number of such concerns very large. Moreover the great corporation makes it possible for a man to have part ownership in an industry where complete ownership would be entirely out of the question for him. This is especially important in view of the apparently successful efforts which some large corporations are making to encourage stockholding by employees.

Besides this, large savings are made by corporations themselves. What shall be done with earnings ordinarily depends on formal action by the directors; and earnings put back into the business are savings. To save in this way earnings in excess of ordinary dividends is generally easier than to save a part of the dividends themselves, even when they are larger than usual. From one point of view it may, of course, be regarded as a forced saving so far as some of the stockholders are concerned; but this results from the fact that the action of the corporation is collective, not individual, action. How power and hardship are distributed among the members need not be considered here. What is important to note is that savings through the investment of earnings in the business will not be made unless there is motive for making them. Such saving, however, does not ordinarily require as strong a motive as would be necessary to induce an equal amount of saving among the stockholders as individuals.

§ 6. Efficiency in the furnishing of capital to industry has to do not only with the human energy spent in accumulating a given amount of it, but with the extent to which it gets into the hands of those who

will make the best use of it and the cost involved in getting it there. From a private point of view the ability to make good use of capital is to be judged chiefly by the amount and certainty of the return that is offered for it. From a national point of view, at least when industry is considered as a whole, this is far from satisfactory. That phase of the problem however, has to do more largely with enterprise than with capital; and in so far as the conditions are made favorable to efficiency in enterprise the ability to pay well for the use of capital may be taken, with comparatively little qualification, as indicating the ability to use it well.

Under modern conditions large amounts of capital are saved by persons who cannot themselves direct its use; and the transfer of capital from owners to users is primarily a matter of borrowing and lending. Strictly speaking, no borrowing or lending is involved when a man, or a group of men, uses his own capital in his own business. It is important, however, that attention be given to the substance rather than to the shadow. Strictly and technically, the man who becomes a stockholder in a corporation becomes one of the joint owners of the business; and it would be well if this fact were more generally realized by those who regard themselves as investors. The corporation is, indeed, a person for certain purposes; but it is also an association of which the individual stockholders are members. Their position as owners is not altered by the fact that they act through an elected board of directors; but it is unquestionably obscured. Many stockholders think of the company as, in very truth,

an entirely different person from themselves. Judged by their intentions, by their action or inaction, and by their influence, they are lending; and, it may be added, they are often so regarded, though not without qualification, by those who, in fact, control some of the most conservative corporations. Besides this corporation securities are of many kinds, and shade by almost imperceptible degrees from common stock to the highest grade of bonds. For these reasons it will be well to include the purchase and sale of stock in considering the transfer of capital.

There are few, if any, departments of business in which there is more need for independent middlemen than in the marketing of corporation securities and other instruments through which long time loans are made. As commodities securities are not finished goods at a time they are put on the market, but depend for their value on the resources or the continued success of those issuing them. To form a reasonably good judgment of their quality ordinarily involves considerable expense for investigation and the exercise of well trained ability. This some types of middlemen can provide. Comparatively few of those who have capital to invest are in a position to bear the whole cost of an investigation or even to pass on its results without expert advice. They can hardly look to the issuers of securities for full information and impartial judgment. Some of the latter are dishonest and none are disinterested. The services of the middleman may also be of considerable value to the issuers, for the marketing of securities is not ordinarily a regular part of their business, and they have neither the selling organi-

zation nor the experience to deal effectively with the marketing problem involved.

There are, of course, some cases in which sellers and buyers can advantageously deal with each other directly. When the owners of capital are already familiar with the character and business of those who wish to use it and the amount required is no greater than they are in a position to provide no middleman is needed. The very large capitalist who makes a business of investment may be as well equipped as any middleman to investigate and as able to pass on the merits of a loan. Unless, however, he assumes responsibility for the whole amount some duplication of the work of investment is generally implied.

A going corporation may appeal to its stockholders, employees, or those with whom it has business relations for the purchase of its securities. When this is done the purpose is not, as a rule, merely to secure capital. Stockholders have ordinarily a right to subscribe to their pro rata shares of the issue of new stock before it is offered to the public, and if, as is commonly the case, the price which they have to pay is less than the market value the difference may be regarded as profits made by their corporation. When a special effort is made to sell securities to employees or customers a part of the motive is usually to secure their interest in the business.

The attempt to sell securities to the general public directly does not necessarily imply that they are unsound, even from an investment, as distinguished from a speculative point of view. This method is often adopted by governments whose bonds are of the highest

grade. It is occasionally adopted by corporations that have good securities to offer. Neither can it be assumed that only good securities are handled by middlemen. Some middlemen do not profess to perform any advisory function, and not all of those that do are either able or honest. Nevertheless it is true, as a general proposition, that independent middlemen of the better type, perform a function which the investor, especially the small investor, cannot well do without. They not only help to protect him from ignorantly entering upon speculation which he would not be qualified to enter even if he had his eyes open, but often from what is little better than downright robbery.

The services of the dealers in securities do not always cease when the securities have been sold. Many middlemen recognize a moral responsibility for them, though they generally avoid any legal obligation. In order that they may meet this responsibility properly they watch the business of the borrower with some care. In many cases they demand and receive a place on the board of directors. If the business is conducted in such a way as to imperil the securities they are in a position to give expert financial advice; and sometimes if it is not heeded they can bring heavy pressure to bear on those in control. In case of failure they frequently take part in the reorganization that follows. There has been some objection to the membership of bankers on many boards of directors; and by the Clayton Law an attempt was made to restrict it so far as competing corporations are concerned. While such a restriction may be justified, there is little

reason to doubt that the influence of financial middlemen of this type tends, upon the whole, to prevent losses of capital, and to make those that do occur smaller than they would otherwise be.

CHAPTER XI

FINANCIAL MIDDLEMEN AND THE PROTECTION OF INVESTORS

§ 1. THE services of the financial middlemen are so significant for industrial efficiency with regard to capital as to justify a brief consideration of some of the classes into which such middlemen can be divided. There are many of these classes. The services which they perform range from those in which the middleman assumes every burden of which it is possible for him to relieve the owner of capital to those which consist of little more than the following of the instructions given by the owner. Corresponding to these services the responsibility of the different classes ranges from a practical guarantee of principal and income to substantially nothing more than the honest execution of the orders given. To consider all of the different classes here is impracticable, but a few of the most important ones may be selected as typical.

The savings bank is more than a middleman. In some cases it is really an association of original lenders, its affairs being managed on their account by trustees; and in practically all cases it retains title to the mortgages or other securities it buys. To an even greater extent than is true of the small stockholder in a corporation the depositor in a mutual savings bank is, in

spirit, a lender and the savings bank is a borrower from him. In the case of joint stock savings banks the relation between the corporation and the depositor is clearly that of borrower and lender. Notwithstanding the fact that all savings banks retain title to the securities they are in an important sense financial intermediaries. They collect savings that are too small individually for the best investment, and they aggregate them into larger units. They have a knowledge of securities and the security markets that their depositors do not, save in exceptional cases, possess. Because the amounts they handle are large they can minimize the risk through the distribution of investments.

Appealing to a different class of owners of capital are those organizations, which lend on mortgage or other security to which they retain title, or which they place in the hands of trustees, and themselves secure funds by the sale of their own bonds. In this class should be placed the Federal Farm Loan Banks, the Federal Joint Stock Land Banks, some of the Edge Law Banks, and a great variety of corporations chartered under state laws. The federal laws under which banks of this sort were established were passed primarily to make capital more readily available to certain classes of borrowers, though great care was taken to make the securities which they issue thoroughly sound from the point of view of the buyers. Since one of the chief motives underlying these laws was the encouragement of certain types of industry which were thought to be of special national importance, and since the method was chiefly the removing of obstacles to the furnishing of capital to them, such laws may be re-

garded as representing a more or less conscious attempt to increase national efficiency with regard to capital.

Dealers in securities who buy and sell for profit are commonly spoken of as bankers or banking houses. From one point of view they may properly be regarded as security merchants rather than as bankers. The buying of mortgages, bonds, notes, and the like from the issuer is, however, a form of lending, whether or not the loan be subsequently transferred to someone else. In a large number of cases the financial character of the work overshadows the mercantile; and many of the leading houses perform a number of financial functions that are not directly connected with dealing in securities. A few of the largest houses of this type are among the recognized leaders of what is sometimes spoken of as Wall Street. Upon the whole, the term "investment banking" seems to be fairly descriptive. In some jurisdictions, however, only those concerns which are organized under a national or state banking laws are permitted to apply the term "bank" or any of its variations to themselves. So long as investment banking is not subject to careful regulation this policy is not without a considerable measure of justification.

Investment bankers, using the term broadly, are of many different types. Some are wholesalers; some retailers. Some devote themselves almost exclusively to the purchase and sale of securities; many have other interests, usually of a financial nature. Some conduct their business on a high ethical plane; others on a low one. The better houses will satisfy themselves as to the soundness of an issue of securities before recommending them to clients, though it is often only the one

dealing directly with the corporation that makes the investigation. This service is of very great importance from the point of view of national efficiency; and if the purchase of bonds by persons of moderate means is to increase it is of growing importance.

Unfortunately it is often difficult, especially for the inexperienced buyer, to distinguish between the better and worse types of investment bankers, or even between the investment bankers and certain dealers of a fundamentally different type. The latter are not merchants. They deal on commission; but because of the way in which they do business they must be distinguished from the better type of brokers. They commonly handle low grade bonds or, more often, stocks. In most cases the securities they handle are highly speculative; and sometimes they are fraudulent. This class of dealers commonly appeal to the "investor," and the attempt is made to convince him that the stocks or bonds sold yield a high rate of return with safety. Some of these dealers believe in the securities they handle, but their judgment is far from conservative, and is not, as a rule, based on a thorough investigation. Some of them are swindlers. Even among those who are honest the costs of selling are commonly high, and the losses are considerable.

The broker buys and sells on commission. So far as he confines his activities to the field which the name implies, none of his own capital is invested in the securities he sells. He simply executes the orders which he receives from his principal. Ordinarily he makes no thorough investigation of the securities though he is usually in a better position than the small

buyer to form a fairly good judgment of them. Such recommendations as he may make are not entitled to the same confidence that may properly be given to those of the investment banker; and some brokers are careful not to make any recommendations of the sort that would imply much responsibility on their part. The legitimate broker usually appeals to the speculator more than to the investor. The brokerage business, properly conducted, is legitimate and economically useful; but the capitalist who buys through a broker should ordinarily be in a position to judge for himself in regard to the securities bought. The broker is a middleman; but he is not an independent one.

It is, of course, the marketing of new issues that is of primary importance in this connection. Clearly after securities are once in the hands of capitalists their subsequent purchase and sale is not a matter of investment from a national point of view. It is simply a transfer from one person to another. For this reason the speculative gain or loss resulting from the rise or fall of market prices must not be confused with the gain or loss of capital from a national point of view. To be sure, it may register a gain or loss resulting from the success or failure of the business of the issuer of the securities; but this is an entirely different matter. The maintenance of an active market for securities, however, has some bearing on the efficiency of capital. In the first place it tends to make the securities more valuable, and thus helps to make saving more worth while. In the second place it makes it practicable to keep less capital in reserve against emergencies.

§ 2. It should never be forgotten that losses of capital are national as well as individual losses. All business, of course, implies risk; and even a moderate degree of industrial progress implies a great deal of it. Some losses are therefore inevitable. Their extent, however, is not a mere matter of chance or of the degree of industrial progress, but depends in a very large measure on the intelligence with which capital is invested and the ability with which it is used. Within broad limits the owner of wealth must be allowed to decide for himself what shall be done with it; but this does not mean that society can do nothing to enable the investor to decide wisely. Education is, of course, essential, but no education that is practicable is sufficient. Much may be done, however, to prevent the digging of pitfalls in the path of the investor and his guidance into speculation into which he would not go if he saw his way clearly. To do this will not only tend to reduce losses, but will help to put capital into the hands of those who can use it well.

In the absence of legislation specially suited for the purpose it is difficult, if not impossible, to give the buyers of securities the protection they should have. As a rule little can be done unless the intent to defraud is shown. Even where fraud exists proof of it is often practically impossible. Dishonest dealers can sometimes conduct their business in such a way as to furnish little that would serve as legal evidence against them. Their victims, moreover, are largely persons who do not know their rights or how to enforce them. There are, of course, many cases in which fraud is detected; and the United States Post Office has been so

successful in this matter as to make it unwise for such dealers to send through the mails anything that might be interpreted as showing intent to defraud. There can be no doubt, however, that the volume of fraudulent securities is large.

The evil, however, is not always—perhaps not usually—a matter of dishonesty. Promoters are almost necessarily enthusiastic, and often have a grossly exaggerated idea of the merits of the securities they issue. In some instances they offer them directly to the public, or through brokers who are frankly not acting on their own account. Even when this method is not adopted there may be nothing that can fairly be called misrepresentation. The securities may be speculative; but the sale of speculative securities is not, of itself, illegitimate. The difficulty arises from the fact that many persons ignorantly buy speculative securities who are distinctly unqualified to judge of their value, and have no intention to speculate. There may be some honest differences of opinion as to how far the seller is morally bound to go to protect the buyer from himself. Occasionally those offering speculative securities frankly state that no one who can not afford to take a chance should buy, and there are brokers who will, on request, give an honest and conservative opinion as to the speculative character of the securities they handle. Nevertheless, the methods adopted in the sale of speculative and fraudulent securities are so often alike, and so often lead to the same results, that some regulation is needed.

This regulation may be applied to the securities themselves, to those who deal in them, or to both. It

may be limited to a requirement of publicity, or it may extend to the licensing of dealers and the passing upon any issue by some governmental authority before it may be offered for sale. In England reliance is placed largely on the first of these methods, the law making definite provisions as to the fullness and accuracy of the information that must be made available. In this country the problem has been left mainly to the states; though the national government is able and willing to act effectively when an attempt to use the mails to defraud can be shown. Many of the states have passed what are known as "blue sky laws," [1] providing for rigid supervision and regulation. Others have passed laws much less sweeping in character. A few have no laws of special importance dealing particularly with the subject. Some of the blue sky laws have apparently been so drastic as to interfere seriously with legitimate business. For some years blue sky legislation met with difficulties in the lower federal courts, but the Supreme Court finally upheld the right of the states to deal with the subject. The problem involved, however, is very largely an interstate problem; and regulation of some sort should be undertaken by the national government.

§ 3. Supervision and regulation of the character of securities sold to the public may be justified on much the same grounds as supervision and regulation of the quality of foods, drugs, and other physical commodi-

[1] While the term "blue sky law" is sometimes thought of as applying to any law the special purpose of which is to protect the buyer of securities, it may properly be limited to a law requiring a permit for the sale of securities of particular issues or for the business of dealing in securities.

ties. Many purchasers at the time they buy are unable to form a reasonably good judgment of what they are getting; and the consequences of mistakes are often serious. In both cases the strength and well-being of the nation, as well as the happiness of individuals, are involved. It is a matter of national importance that the number of savers be increased and that it include many to whom the application of the doctrine of *caveat emptor* would be disastrous. It is, of course, true that standards of quality in the case of securities and in that of physical commodities must differ in some important respects. There is, for example, an element of risk in all securities, and it is often difficult to say how great this risk is. The quality of securities, moreover, depends not only on conditions at the time of their sale, but on the subsequent history of the business of the issuer. Difficulties of this sort must be taken into account in framing a law on the subject, but they do not preclude regulation of a desirable sort.

Such regulation should not be limited to the making of a distinction between securities which may and those which may not be offered to the public. In the latter class can properly be placed only those that are fraudulent or have no reasonable chance of success. What is needed is not only to protect the buyer from securities that are clearly bad, but to enable him to distinguish between those in which the risks are large and those in which they are small. Regulation which did no more than make the distinction between good and bad would not, indeed, be without value. The sales of illegitimate securities are so great as to strongly

suggest that their issue is at least believed to be highly profitable. Fraud is difficult to prove and incompetency in business is not a legal offense. Under such circumstances a law which is designed to prohibit the issue of illegitimate securities is likely to be more effective than one which attempts to punish after the harm has been done. No law, of course, can be completely effective; and the government cannot reasonably be expected to guarantee all the securities it permits to be sold. While, however, the good that can be accomplished is limited it is very great.

A distinction between different kinds of securities on fairly definite lines is by no means impracticable. In some of the states having blue sky laws securities that are not clearly of an illegitimate sort are divided into a number of classes and different sets of regulations are applied to each. Securities issued by governmental bodies, especially the National Government and the states, may properly be exempted from all regulation. Others are already subject to regulation for a somewhat different purpose, such as the prevention of overcapitalization in the case of public service corporations; and here no further regulation is needed. Others are issued by established companies with good financial records and under conditions which conform to the recognized principles of sound investment finance. Here some supervision is needed, chiefly for the purpose of making sure that a particular issue of securities falls within this class. Still others are issued by new corporations which have no financial records or by old corporations whose records are not satisfactory from an investment point of view. These are specu-

lative in character and should be sold only under conditions which make that fact clear. Besides this it is often difficult to distinguish between securities that are merely speculative and those that are dishonest or though not dishonest have no reasonable chance for success; and for this reason special attention should be given by the regulating authorities to the speculative class.

Laws of this type necessarily place upon the issuers of legitimate securities some burdens which must be regarded, even from a national point of view, as costs. Where the laws are reasonable in character, however, these burdens are not necessarily very heavy, save perhaps in exceptional instances, and they are not without some compensations. The facts that should be filed with the government are, in the main, those which the issuers, and the dealers acting in their behalf, should in any event have in their possession. In some instances an independent governmental investigation may be necessary, but cases of this sort will probably be found to be exceptional, especially after the working of the laws has become well established. Some trouble and expense is, of course, necessary to put the information in the form required, and where the same information must be furnished in different forms to different jurisdictions the burden may be serious. This is one of the reasons why national rather than state laws, are desirable. Theoretically the difficulty might be avoided by uniform state regulation or by sound regulation in all the states with some understanding as to which should act in a particular case, and with full recognition by each of the actions of the others. It is to be

feared, however, that the practical difficulties in the way of such a solution are insurmountable.

Compensation for the burdens imposed is to be found in the elimination of undesirable competition for the use of capital. This consists not only of the competition of securities sales of which should be prevented, but in the competition of speculative securities for the supply of capital seeking safe investment. It is probably true that this will in some cases make more difficult the sale of legitimate but speculative securities; but to argue that this will mean a check on economic progress is to argue that legitimate speculation needs the wealth of those who must act blindly and that it is better that those who cannot act intelligently should take a chance rather than lend their money where it is really needed and is safe.

Unnecessary losses of capital take place not only in connection with the issue of securities, but also in connection with the way in which the business of the issuers is conducted. Some kinds of business are subject to a considerable measure of regulation in practically all parts of the country. This is conspicuously true of banks and of public service corporations. In such cases the financial aspects of the business are commonly regulated as an incident to the regulation of service. Close financial supervision of all business organizations that offer securities to the public is probably impracticable—at least under present conditions; and it is by no means certain that it is desirable. Much would be gained, however, by the filing of reasonably full certified financial reports and the making of these available to all who are interested. In comparatively

few cases is anything of this sort required. In addition to this the proper governmental agency might be authorized to take action, either on its own initiative or where reasonable grounds are furnished for the belief that those in charge are guilty of fraudulent or otherwise improper action. This is especially desirable when the number of security holders is large and they are widely distributed.

As in the case of the data required at the time securities are issued, the difficulties connected with the filing of reports can easily be exaggerated. The information needed is practically all of the sort that should, in any event, be prepared for the use of those in charge of the business. It is, generally speaking, only when different authorities make different regulations that the trouble and expense involved need be serious. Here, as in connection with the original issue of securities, it would seem that national, rather than state, regulation is desirable.

Some corporations even now publish fairly full reports, but cases of this sort are not nearly as numerous as they should be. Doubtless there are times when secrecy in regard to its financial condition is of advantage to a business, but it does not follow that it is equally advantageous to the public. Generally speaking, competition is fairer when all the material facts are known to those with whom business is done. So far as can be determined no serious public evil has resulted from the requirements in regard to financial publicity imposed on banks and certain other financial institutions; and in this respect there is no reason for supposing that the situation would be different in the case

of business concerns of a more private character. It must, of course, be admitted that the filing of information has not been sufficient to prevent serious losses in the case of financial institutions, but there is no reason to doubt that they have been much less than they would otherwise have been.

§ 4. Besides the regulation of the securities that may be offered for sale some regulation of the business of selling them is necessary if buyers are to receive the protection that may reasonably be given them. Without this it is difficult, and in some cases impossible, to prevent the sale of illegitimate securities, especially where the issuers are in a different jurisdiction from that in which the market is located. Besides this, only minimum standards can be applied by a governmental agency. Much must be left to the discretion of the buyer; but he should have some assurance of the honesty and ability of those with whom he does business.

While the number of states in which a permit is required for the business of dealing in securities has increased rapidly in recent years there are still a number, including a few important ones, in which there is no such regulation. In such cases the business differs from most others that are primarily financial. Commercial banks, savings banks, trust companies, and insurance companies, for example, are generally subject to public supervision and regulation. It differs also from certain professions and other occupations in which the need for protection to the public is generally recognized. Lawyers and physicians, in particular, are required to show that they have certain qualifications before they are admitted to practice; and the

accountant who cannot put the initials C. P. A. after his name is commonly at a disadvantage. In some states the list of occupations which no one is allowed to enter without public approval is a long one, and includes not only the recognized professions, but such lines of activity as barbers and undertakers. Most of these occupations are concerned primarily with the rendering of personal service, but some, such as pharmacists, also sell physical commodities.

There is no good reason why the business of dealing in securities should not be included among such occupations. As it is actually conducted personal service is usually an important element. Most buyers are largely dependent on the honesty and competency of those with whom they do business; and the losses represent inefficiency in the use of capital. Indirectly they keep down national efficiency in another way, for they make it unsafe for many to have that interest in industry as capitalists which would make them more efficient as laborers. Where the laws are reasonable the hardship imposed on those who are honest and competent is not serious; and it is probable that the gain that results from the elimination of an undesirable form of competition is far greater than the hardship.

While little attention can here be given to the details which laws in regard to dealers in securities should contain, a few general points should be noticed. The purpose is to secure honesty and competency in the conduct of a certain kind of business. Obviously care should be taken not to hamper the bona fide investor or speculator in disposing of his securities, not as a business, but as an incident to investment or

speculation. In existing laws such persons are not classed as dealers. Generally speaking, no permit should be required to sell to or through those who are legally recognized as engaged in the business. The law, however, should apply to all dealers, whether they seek a profit or a commission. It should apply also to promoters and to corporations that sell directly to the public as distinguished from those who are already connected with the enterprise. Security salesmen and others who are merely employees may properly be required to secure a permit, though their qualification would naturally be more moderate than those of their employers.

It is, of course, impossible to keep out of any occupation all who are not properly qualified for it. Even in connection with the relatively old and well established professions of law and medicine there are shysters and quacks. In both there are men who have been regularly admitted to practice who are incompetent or dishonest. It must be so in finance. Some will violate the laws and escape detection. Others will find some loophole through which they can crawl. Nevertheless, the evil can be very greatly reduced. The danger of overregulation, however, must be recognized. Laws which have this defect not only impose hardships on legitimate dealers, but reduce their power to serve. Besides this, they strengthen opposition where coöperation would be especially helpful. There is little reason to doubt that under certain conditions valuable assistance in the enforcement of the law may be secured from business or professional associations of the dealers themselves.

CHAPTER XII

ENTERPRISE AND THE FORMS OF INDUSTRIAL ORGANIZATION

§ 1. It is upon enterprise, more largely than upon any of the other factors of production, that the efficiency of a business organization ultimately depends.[1] In substantially all cases the responsibility rests chiefly on the owners for it is they who have the power to determine what policies shall be adopted and who shall be the executives. The immediate control may, of course, be entrusted to directors, who are representatives of the owners, or to officers or other employees, but save so far as these are also owners the power which they exercise is a delegated one. The business organization, moreover, whether incorporated or not, must be considered as a unit; and for most practical purposes it is. The forms of business organization and the way in which power and responsibility are divided among the members are, of course, of great im-

[1] In a recent admirable series of studies on "Waste in Industry," made for the Federated American Engineering Societies, an attempt is made to express in percentages the proportion of waste attributable to management, to labor, and the general conditions (pp. 8-9). By far the largest share is laid at the door of management. "Management," as the term is there used is not precisely the same as enterprise, but for the reasons given in the text the difference between them is not of great practical importance.

portance in connection with the efficiency of enterprise, but they are subordinate parts of a larger problem. So too, are the general conditions under which business is done, including under this head the restrictions imposed on industry and the aid given to it.

It is the determination of the way in which the industrial resources of the community shall be utilized that constitutes the great function of enterprise. A very important step is taken at the time the business is launched; and even the man who subscribes to but a share or two of stock in a large corporation is, by that act, determining what use shall be made of at least a small part of the available resources. This, however, is only the first step. What shall be produced, in what quantities, at what times, in what places, and by what methods are all problems that must be dealt with in the continued operation of the business. To solve such problems requires good judgment, knowledge of conditions and of men, and the control of a certain amount of wealth. Upon success in their solution the prosperity of the business is chiefly dependent, for whatever faults the other factors of production may possess, it is one of the functions of the enterpriser to select those that are best for his purpose and to make a better use of them than his competitors can. From a national point of view this may not result in maximum efficiency; and when it does not one of the most important remedies is so to modify the conditions under which business is done that private success will be dependent on the securing of national efficiency. This alone, of course, is not enough. It would, at best, merely select those concerns which were relatively efficient from a

national standpoint. The absolute efficiency of the most successful might still be low. If it is to be increased to the fullest possible extent it is essential that the best enterprising ability of the nation be brought into activity and that the costs which the enterpriser must encounter be reduced to the lowest possible point.

Much of the inefficiency that appears in connection with the other factors of production is really inefficiency of enterprise. Excessive inventories, for example, obviously imply a waste of capital; but the responsibility must rest, not upon the capitalists as such, but upon the men in control of the operation of the business concerned. The same thing is true of improperly equipped or badly located plants, and of most of the losses that occur in the use, as distinguished from the provision, of capital. The principle applies with perhaps even greater force to natural resources, for their exploitation is quite as largely a matter of enterprise as is the use of capital, and their production is something over which man has no control. In like manner enterprise is primarily responsible for many of the losses that appear in connection with labor. A form of waste, the importance of which was well brought out in the studies made for the Federated American Engineering Societies, is the idleness resulting from the failure of the "management" to provide the workmen with proper materials at the right time. The serious condition in the coal mining industry, with its irregular production and the small number of days worked each year, is to be attributed, in a large measure, to the failure of those in charge of the industry to solve certain difficult problems of efficiency.

Here, it should be noticed, there is a large degree of waste in all of the factors of production.

It must not be inferred from the emphasis laid on the responsibility of the owners of a business organization for the efficiency with which it is conducted that they alone represent enterprise or that efficiency in enterprise is the only determinant of efficiency in industry. Enough has been said in previous chapters to show that with few, if any, exceptions some enterprise is necessary on the part of those who are primarily concerned with one or more of the other factors of production. They must at least see to it that the resources or labor that they control are placed at the disposal of those who can make effective use of them. To do this is in some measure to determine how the economic resources of the community shall be used. The laborer takes a personal part in industry; and in the course of his daily work problems sometimes arise which call for the exercise of judgment on his part. In the case of the higher employees much discretion may be allowed, and the services that they perform include much that is properly called enterprise. In business practice it is chiefly on the basis of the authority exercised that a distinction is made between "officers" and "employees"; though even the former are primarily concerned with the carrying out of policies for the adoption of which the owners have final authority. The distinction is a practical recognition of the close relation of labor to enterprise, though it is not an accurate one, for most of the "employees" contribute in some degree to enterprise.

That there are some aspects of efficiency in con-

nection with capital and labor, if not also in connection with natural resources, that are not mere aspects of the efficiency of enterprise would by this time be too clear to need further demonstration. Those who represent any one of the factors, however, have a strong interest in efficiency as applied to each of the others, because such efficiency ordinarily increases the demand for their own factor, and consequently its value. Enterprise, because it is the organizing and guiding factor, holds a key position. The spirit of thrift, for example, is an important element in the efficiency with which capital is accumulated; and the demands of enterprise for capital and the safety with which funds can be invested contribute greatly to the growth of this spirit. Skill is an important element in the efficiency of labor, and the development of skill is largely dependent on the way in which industry is conducted. The increase of efficiency as regards the other factors of production is therefore one of the important functions of enterprise; and by the way in which it helps to bring about such an increase its own efficiency is, in part, to be judged.

§ 2. In any attempt to analyze enterprise a distinction must be made between the business unit and the individuals in whose hands the control of industry lies. It is true that in the single proprietorship the business unit and the owner are, for many purposes, identical; but even here the merits of the one man concern and the merits of its owner are, in the main, distinct. In many lines of industry the ablest business man could achieve but a moderate degree of success, either from his own point of view or from that of the nation,

if he attempted to establish a business of his own. On the other hand, even when the distinction between the business unit and the men who compose it is clearest there is a close relation between the two. A corporation with many active stockholders, for example, notwithstanding its legal personality, is at bottom an association of individuals; and the character of the association must depend very largely on the character of its members. It may be better, from an industrial point of view, than are any of them, though this is not necessarily the case; but a corporation in the hands of able men who work in harmony with each other will, other things being equal, be more effective from a business point of view than one that is in the hands of inferior men.

The problem of efficiency of enterprise may therefore be divided into two subordinate problems which, though in the main distinct, are in some respects closely related to each other. One of these has to do with the business unit as a whole and the other with the individuals of whom the various business units are composed. The maximum degree of efficiency of enterprise as a whole implies both the most efficient forms of organization and the most efficient individuals to work through them. Clearly the needs of different industries, and even of the same industry at different stages of its development, differ greatly, both as regards men and as regards organizations. There are, however, certain general principles which are well worthy of consideration.

A serious complication results from the fact that the business unit and the character of the individuals

composing it have important effects on each other. The large and complicated organization, for example, calls for a different sort of ability on the part of the men who direct its operations than does the small one man concern. Team work, which implies both the ability to work in harmony with others for a common end and a sort of pride in the organization as a whole, are essential. It is true that large corporations are commonly under the control of a small group, or even of one man. This, however, is in the vast majority of cases a matter of leadership; and leadership implies a following. It calls for a type of ability on the part of those who are in active control that not all men who are in some respects well fitted to direct industry possess. Where the spirit of industrial individualism is strong and the conditions are not too unfavorable to individual enterprise the large complicated organization will be at a disadvantage. Those who are most competent to direct it, whether as sharing the supreme power with others or as lieutenants of those who are really dominant will tend to break away in order to direct establishments that are more distinctly their own. Under such conditions industry will tend to be in the hands of a relatively large number of relatively small concerns, even though the conditions are such that a large organization would be somewhat more efficient if it could attract and hold equally able men. On the other hand, the conditions may be such that relatively small concerns would be really more efficient if men of the highest grade of ability were willing to operate them. Where, however, an important position in a large and powerful organization appeals strongly to

men of this type, where they have the capacity to work with each other, and where the advantages of small concerns resulting from other considerations are not too great, the large concerns are likely to be established and to achieve a considerable degree of success.

It need not be inferred that the different types of ability called for by the different sorts of business units are so far innate that there will be serious loss to the nation if conditions are such as to give a decided advantage to any particular kind of organization. To what extent it is so is a question that could be answered only after careful research. It is clear, however, that many of the men who have come to hold important positions in great combinations have done so only after they have achieved conspicuous success in relatively small independent businesses of their own; and there is no reason to doubt that they would have continued to be successful had they remained independent. On the other hand, love of independence has undoubtedly in some cases presented an obstacle to combination, whether of large corporations or of single proprietorships. Innate ability is necessary in any case; but it seems highly probable that the form it will take depends largely on external conditions.

§ 3. An accurate classification of the types of business organization is difficult if not impossible. These types are many; and they shade by imperceptible degrees from the small one man concern in a competitive industry, in which the proprietor represents enterprise, labor, capital, and natural resources, to the great monopolistic trust, with its subsidiary corporations, with its great variety of products and with its stock-

holders, its bondholders, and its great body of highly organized employees. The chief types of business organization may, indeed, be grouped under a few general heads, of which the single proprietorship, the partnership, the ordinary corporation, the association, and the trust are the most important. While such a classification is valuable for some purposes it fits that in hand only in a general way. Since, however, there are no generally understood terms by which organizations differing in size and complexity can be accurately designated it will be best to make use of this classification. It must be remembered, however, that for the purpose in hand the classification is a rough one. Where the single proprietorship or the partnership are spoken of, unless otherwise indicated by the context, the exceptional cases in which such forms are large and complex will be ignored. In the same way, the term corporation, where it is used without qualification, should be understood as referring neither to the small close corporation nor to the association or the trust. The association should be understood as an organization of other business units which exercises some control over its members but leaves them free as far as their internal organization is concerned. The trust may well be thought of as a large complex organization which possesses a substantial degree of monopoly power over at least one branch of the industry in which it operates. It need not, however, be thought of as necessarily a result of combination. Theoretically at least an organization of substantially the same sort may be a result of growth.

Among the chief criteria by which any form of

organization should be judged are its effects on the selection and on the development of enterprising ability in individuals. These are, of course, only two criteria. As has already been suggested a given form of organization may hold an important place in an industry, even though its effects in these respects are not the best. This may be the result of superior efficiency in some other department of the business or something that cannot properly be regarded as efficiency of any kind from a national point of view. The advantages of large scale production or of monopoly, where they exist, may outweigh considerable advantages in selection and development. The ability to make use of certain forms of unfair competition may be a cause of success for the less efficient man. So may certain kinds of discrimination in the legal regulations to which an industry is subject. Moreover, in judging the effect of a given form of organization on individual enterprise, attention must be given to potentialities as well as to actualities. The problem is the securing of the highest possible degree of efficiency, and in the solution of this problem it is necessary to take into account not only what are the effects of a given form of organization under existing conditions, but what can be accomplished by means of each form.

§ 4. So far as the selection of individuals of great enterprising ability is concerned a system in which there are many small units appears, at first glance, to be superior to any other. It is relatively easy for one who believes that he has the necessary ability to enter business for himself, either alone or with a few asso-

ciates; and it would seem that the impersonal working of competition should select men for success in proportion to the ability that they display. It may, of course, be admitted that efficiency without hard work will have little chance for success; but among those who work hard the able ones should be selected. Even when allowance is made for this it should be remembered that crippling accidents to individuals, as well as to business units, are possible, and the more nearly the business unit is identified with the individual the greater is the danger from this source. Besides this, enterprising ability of more than one sort is needed in many, if not most, lines of business. Marketing ability, for example, as well as ability in the earlier stages of production is ordinarily of great importance, and however great a man's ability in one line he will be severely handicapped if he is weak in another.

In some cases the difficulty can be met, at least in great part, by the partnership or the close corporation, either of which leaves the industry in the hands of small business units. In other cases it may be met when a part of the work is done by larger organizations. Cooperative agricultural and horticultural associations, for example, do most of the work of marketing, including grading and packing, for their members and aid them in other ways. This is partly a matter of large scale production, but the important point to be noticed in this connection is that it permits specialization in the work of growing, and the selective force of competition applies chiefly to this specialized ability.

Even when competition is effective in the selection of enterprising ability in an industry in which the units are small it is likely to be very costly. The fact that the business is easy to enter results in the entrance of many who are incompetent. The national cost of elimination may be small in individual cases, but the number of such cases is large. After all, the selection that takes place is largely natural selection as opposed to that which is consciously directed towards a given end.

The simple forms of organization that generally prevail in an industry suited to very small scale production have certain unquestionable advantages as far as the development of ability is concerned. The association between employer and employee is normally fairly close, and the latter commonly has the opportunity to learn at first hand what many of the chief problems of the business are and what steps are taken for their solution. Because the business is small he can view it as a whole and know something about all parts of it. The position of the employee in such a business has much in common with apprenticeship, though the form of apprenticeship may not be recognized, and the employer may make no effort to give his employees any training in the industry except so far as it will make them more useful from his point of view. The fact that a very large number of men acquire businesses of their own tends to keep alive the spirit of enterprise among those who are employees and to give them a strong motive for the development of their own powers. On the other hand the training that the employees receive does not go very far. Ordinarily it

need not, because the particular problems with which they must deal are relatively simple.

After a man has established a business of his own any further training that he receives is largely a matter of personal experience. This may be of great importance, but the range of experience is likely to be narrow. He cannot ordinarily get the broad view of the industry as a whole that those at the head of a very large concern can, nor can he ordinarily know the details of the experience of others. Competition may be very effective in rewarding success and in punishing failure, but of itself it does little to show how the one may be attained or the other avoided. The wide awake man may learn something from his acquaintances, from trade journals and other publications, and from associations of which he, or his business, is a member. Where an industry is chiefly in the hands of individuals, partnerships, and close corporations, however, business is likely to be regarded as a private matter and information is kept secret by those who possess it. The association, moreover, is itself a form of organization and the existence of a really effective one somewhat modifies the character of the industry. In every important industry there are, of course, some men who succeed in developing their powers to a high degree; but in an industry in which small units prevail they may be regarded as doing so in spite of obstacles.

§ 5. The situation is somewhat different when the conditions are such as to give a substantial advantage to large scale production. Here the greater part of the business is in the hands of corporations; and while a fairly large corporation may be, to all intents and

purposes, a one man concern there are usually a number of persons who are interested as owners in each. Competition acts upon business units in much the same way as it does in the case of smaller concerns; and there is no reason to doubt that it does so as effectively. The question is whether it has as good a field from which to select. How this question should be answered must depend on the internal character of the corporation. Here two phases of the problem present themselves: the significance of the corporate form and the significance of the scale of production for which that form is ordinarily necessary. It is important also to bear in mind the distinction between what the corporation is and what, under proper conditions, it may be made to be.

The owners of a corporation are the stockholders, and any one can become a stockholder who can purchase a single share. The chief function of the stockholders, under ordinary conditions, is merely to elect the board of directors. Power to do this, however, is usually in the hands of those who hold a majority of the stock, and even if the stock be not closely held, the small stockholder will commonly not take the trouble to vote, and in many cases if the existing board of directors is reasonably satisfactory will give his proxy to a person named by them. A harmonious board of directors is usually very difficult to oust. Nevertheless, the leading stockholders are commonly men with a fairly broad outlook on business who have themselves achieved a considerable measure of success. Each of them wishes the corporation to be profitable and will ordinarily be guided primarily by

this fact in choosing directors. Generally speaking, to secure control of a corporation whose stock is of any value a man must have more wealth than would be necessary to establish a business of his own or must be able to convince the leading stockholders that he can and will make good use of such control. Upon the whole, the conditions would seem to be favorable to the selection of men of real ability, at least in an industry which is sufficiently well established to permit its methods and needs to be generally understood. It is true cases will arise in which a man of ability has neither wealth nor the power to convince others of his capacity. Against this must be set the losses that are inevitable when any man who thinks he has ability needs comparatively little capital to enable him to put it to the test.

It must be recognized, however, that under existing conditions there are a considerable number of corporations in the hands of those who are dishonest or incompetent or both. Generally speaking these are among the unfit, but their elimination is often slow and costly. Among the chief circumstances which make the existence of such corporations possible is the ease with which worthless or highly speculative stock can be sold. One of the things most needed is the education of "investors" as to the selection of securities. In particular, they should be made to understand that the ownership of stock properly carries with it responsibilities and nearly always involves risks; that no one should become a stockholder without some knowledge of the business and of the men in charge of it; and that the ignorant purchase of stock is

gambling, with heavy chances of loss. This would not, of course, prevent stock gambling, on the part of those who wished to indulge in it, but these include only a part, and perhaps a small part, of the persons to whom highly speculative and fraudulent stock is sold in the first instance. The elimination from this market of those who wish to be investors would make it necessary for promoters to appeal more largely to those who were qualified to bear the responsibilities of stockholders. A little might be accomplished by blue sky laws of the right sort, but, it is to be feared, only a little, for stock is not necessarily illegitimate because it is highly speculative. What would probably be of more significance would be the enforcement, subject to clearly defined exceptions, of the rule against the issue of stock except in exchange for full value. Stock that is of little value appeals too largely to men whose interest is in the stock market rather than in the industry with which the corporation is concerned. Such men are less likely to exercise well the duties of stockholders.

The problem has to do not only with stockholders and directors, but with the officers to whom a large part of the work of enterprise is ordinarily delegated and to all others who are entrusted with the direction of any part of the business. Potentially at least the large corporation has some decided advantages in the selection of men for positions of responsibility. It has many employees engaged in many different kinds of work. It is in a position to judge what part of the work of enterprise a given man can do best and to give him that part to do. It may be thought that the

natural selection which takes place under conditions of small private industry would be more effective, but it must be remembered that the losses are very great, and it is highly probable that much ability is never brought out where the conditions are not favorable to it. Moreover the corporation can use specialized ability whereas in the small private business specialization, no matter how high its quality, may not result in success. It must be recognized, however, that all too often the ability of the corporation in this respect is only potential. One of the great problems of the present time is to make it actual.

Turning from the selection to the development of ability, it should be noticed that as the business grows in size and complexity there is at least a danger that the position of the great majority of employees will become less favorable to the development of such enterprising ability as they possess. In the ordinary corporation the line between the employer and employee is fairly sharp and impersonal. The work of the corporation is usually departmentalized and the typical employee may have little opportunity to learn about any part of the business save that with which he is specially connected. At the same time if production on a rather large scale is necessary it is difficult for a man to organize a business in the control of which he will play an important part unless he has both experience and an appreciable amount of capital. It is true that in the large corporation directors and officers are needed, but these can be, and sometimes are, drawn from the outside rather than secured through the promotion of employees. Under such conditions the spirit

of enterprise which would lead the individual to seek opportunities is likely to be somewhat weakened. Good men for the exercise of control are likely to be scarce and industry as a whole will be weaker on that account. Here, as elsewhere, many exceptional men will succeed in securing a considerable degree of personal development; but much of the potential ability on the part of others will be lost. At their worst, corporations, and large scale businesses of all sorts, are unfavorable to the development of enterprising ability among the people at large and this may go far towards offsetting any contributions they may make to national efficiency in other directions.

At their best, however, large corporations have substantial advantages over small concerns in the development of the capacities of individuals. There are some corporations in which the line of promotion is kept open from the lowest to the highest positions and the directors are so chosen as to include the most important officers. It is a matter of policy not to draw a man from the outside to fill an important position, and in some cases a relatively unimportant one, if a man who is reasonably well qualified can be found within the organization. Under such circumstances a strong effort is likely to be made to develop the human material that the corporation has, and this, together with the fact that promotions are actually made, helps to develop the spirit of enterprise on the part of the employees. Under such circumstances the fact that the work of nearly all the employees is more or less specialized is not necessarily a serious objection. The training that each receives is at least thorough along some particular

line, and as he advances it tends to become broader. The wide variety of experience which the corporation itself has enables it to guide those who are in training much more wisely than would otherwise be possible. A rigid policy under which the entrance to a given organization is at, or near, the bottom has, of course, some disadvantages. In particular it makes it difficult for a man to move from one corporation to another when such movement is desirable. Probably there is no policy that can be adopted that is entirely satisfactory, and in this respect the corporate form of organization is at a disadvantage.

As regards its owners, and especially its directors, the educational potentialities of the large corporation are great. Generally speaking the typical corporation has a broader outlook on industry than is possible for the typical partnership or single proprietorship. Information as to market conditions, financial conditions, and the best methods of production can be more readily collected and brought to the attention of the directors. The corporation has, moreover, a wider range of experience within its own organization. It is easier to make experiments which, if unsuccessful, will not have a crippling effect. The specialization of the training of those directly in charge is not without advantage, for the number of such persons in a given corporation is fairly large and any proposed policy can be examined from a number of different points of view. The fact that one man may be a director in a number of corporations is, in part at least, a phase of specialization. It may be carried so far as to be a disadvantage, but within reasonable limits it means a wider variety of

experience and a larger field of observation for each. The general prevalence of corporations undoubtedly means that many persons who would otherwise have businesses of their own cannot do so, and the mere holding of stock in a large corporation has not as great an educational value. This must be set down as a disadvantage. On the other hand the fact that stock may be widely distributed in small lots means that many persons may be given an interest in the success of an enterprise which, unless the conditions favored very small scale production they could not have.

§ 6. The association, though primarily an organization of business units, is not without an important effect on the selection of enterprising ability. As was pointed out in considering the small private concern the coöperative agricultural and horticultural associations, by themselves taking over the work of marketing, materially affect the way in which natural selection acts upon their members. In particular such associations make it possible for members to devote themselves largely to the raising of the crop and remove some of the disadvantages to which one who has little marketing ability would otherwise be subject. The same principle applies to trade associations generally, though they differ greatly among themselves in character and functions and consequently in the nature and importance of their influence on selection. Where, however, the association does any important part of the work of production it makes some change in the qualities that are necessary for the success of the individual members.

The effect may be either good or bad. In some

cases the association may strengthen the monopolistic influences that are at work in the industry and may help to keep in business those who can produce only at a high cost. Agreements for common action, even in connection with the market, do not necessarily have this effect. An agreement in regard to standardization and grading, for example, may give the advantage to those who can produce at a low cost. A professed purpose of many associations is to eliminate unfair methods of competition. Doubtless their idea of what sort of methods are unfair is sometimes open to serious question from a national point of view. In many cases, for example, associations of jobbers or retailers regard the competition of coöperative associations, mail order houses, and others who are outside of the "regular line" as essentially unfair. On the other hand, some of the methods to which they object are no less objectionable from a national than from a private point of view. Generally speaking, the association wishes to include as many as possible of those in its trade, at least so far as the "regular line" is concerned; and the majority of members are not likely to be favorable to any methods which would enable a few to monopolize it. There are, of course, cases in which some measure of monopoly is desirable. Here the association may be expected to exercise some monopolistic influence, but this is likely to be less far reaching than that exercised by one of the higher forms of combination.

It is not only by the way in which it modifies the conditions under which its members do business that the association exercises an influence on selection. It

is itself a business organization, and how well it performs its functions must depend very largely on the men who formulate and execute its policies. Whether it be incorporated or not it resembles in some important respects the ordinary corporation, though there are also some differences. The position of members is not quite the same as that usually occupied by stockholders. In substantially all cases each is directly interested in the trade and knows a good deal about it. Generally speaking, each has one vote, and if voting power is differently distributed it is usually made to depend directly on the amount of business done. The men who are most active and influential, especially if the association exercises important functions, are likely to be those who have been successful in the business. This is not to say that they are simply representatives of the largest and most successful concerns. Where the latter are under suspicion of being in violation of the antitrust laws they may carefully refrain from any special activity in the association. Moreover not all members are equally interested in work of this kind. Generally speaking, the leaders are likely to be in a position analogous to that of corporation directors. Where the association is small and its work simple the only active officer may be the secretary, and the staff of employees may be very small. Where the association does a large part of the work of the business its effect on the officers and employees is much the same as that of the ordinary corporation.

The educational value of the business association may be very great in any industry in which production is largely in the hands of small independent units.

It is largely through the association that representatives of the different concerns come into contact with each other for the consideration of problems in which they are all interested. The chief function of some associations is the collection of information and its dissemination among their members. This may have to do with such matters as marketing, credits, or even the best methods of conducting the individual business units. The Federal Trade Commission and its predecessor, the Bureau of Corporations, have in some cases regarded their activities as unlawful attempts to control prices.[2] In some instances they may really be of this nature, for the association unquestionably presents possibilities of monopolistic control. Nevertheless the association, at its best, gives its members many of the advantages for the development of ability that are given by the large corporations.

So far as its officers and employees are concerned it differs from its members chiefly in the sort of service for which it trains men. When the association itself is of importance it tends to develop men who can take a broad view of the industry and its needs. In other respects it is much like the ordinary corporation.

§ 7. The trust has, in some respects, greater possibilities than the ordinary corporation. Those who are most familiar with the industry are likely to be already in its service, and in so far as the directors are commonly chosen from among those who demonstrated

[2] E.g., Report of the Federal Trade Commission on the Causes of High Prices of Farm Implements (1920); Report of the Bureau of Corporations on the Lumber Industry, Part IV (1914); Report of the Federal Trade Commission on Lumber Manufacturers' Trade Associations (1922).

their ability as executives and the latter are chosen by promotion from those below them there is an excellent opportunity for the intelligent selection of the individuals who are to control the industry. The trust, moreover, is generally too large for one man to control in his own interest, and this is a circumstance decidedly unfavorable to nepotism. It is true that one man may be recognized as dominant, but this is generally because he can secure the confidence of other men of wealth and ability. The trust, however, is subject to one great disadvantage: in so far as it has a monopoly of the business—and the fact that it is a trust implies that it has at least a substantial degree of monopoly power—the best possible selection of men is desirable, but is not a matter of vital necessity. For the ordinary corporation to select well the men who are to control it is often a matter of life and death. The trust has, apparently, greater ability to select well but less motive; and it is hard to see how any motive can be given which will be as strong as the necessity to which even a large corporation in a distinctly competitive industry is subject. To say that it cannot be done would be going much too far. The trust is simply a form of industrial organization. Competition between groups and between men within it may be very keen and may result in putting the industry in hands that are quite as capable as those in which it would be under conditions of keen competition between business units. The problem is to find some method by which it can be made reasonably certain that internal competition will be of this character. For this problem no solution has, as yet, been found.

At the same time it should be noted that it is by no means certain that the net result of the weaker motive and the greater ability is usually, even under present conditions, less effective than are the forces at work in competitive industry. The public utilities are generally natural monopolies and it is not clear that the men who control them are in any way inferior to the leaders in competitive industry. It is true that the public utilities are subject to regulation of a sort to which the industrial trusts are not subject. If, however, the industrial trusts are to be permitted they must be regulated. It is, of course, vitally necessary that this regulation be of a sort that will favor rather than hinder the selection of real ability. It is to be feared that the treatment of the railroads, in recent years, is open to serious adverse criticism from this point of view.

Little need be added as to the effect of the trust on the development of ability. It has practically all the advantages of the large corporation in an intensified form. The fact that it is very large usually means that there is much opportunity for the promotion of employees to responsible positions, and the delegation of a considerable amount of responsibility is practically necessary. In so far as the trust has a monopoly of the industry in which it is engaged it is largely dependent on its own organization to secure the men who are capable of serving it well in positions which require special training. It is reasonably certain that what it spends for the purpose will redound to its own advantage, for the men thus trained are not likely to leave it in order to serve a competitor. This is an exceedingly important consideration. As in the case

of selection, however, the lack of competition makes the development of ability less necessary. In both cases such considerations serve to emphasize the fact that when the trust is permitted to exist it must be subject to regulation; and it is of great importance that this regulation be wise.

CHAPTER XIII

BIG BUSINESS AND AMERICAN POLICY

§ 1. An important place among the influences only partly connected with the forms of organization which affect the selection of ability for industry must be assigned to the general ideals regarding business which prevail in the nation. Where business is looked down upon as something beneath the dignity of the men most worthy of honor, many of those who could serve the nation best will not engage in it, and many of those who do engage in it will retire sooner than they otherwise would. Such a condition is generally connected with the existence of some non-industrial need of the nation that urgently demands, or has until recently urgently demanded, a large measure of the ability possessed by the people. As has already been pointed out,[1] this was the case at a time when war was a constant menace, when systems of law and order were being established over large areas, and when military success was less dependent on industrial strength than it is today. The rise of industry was itself one of the circumstances that led to the passing of this condition; but the ideals of a bygone régime pass away slowly, especially when the conditions on which such a régime rests though diminished in importance have by no

[1] Chapter V, § 3, pp. 92-96.

means disappeared. It should be noticed, however, that large scale industry is itself favorable to the attraction of the best ability of the nation to industry, for it makes available positions of preëminence to those who are able to hold them.

Of perhaps even greater importance is the degree of individual economic freedom that prevails in a nation, or the extent to which each is at liberty to make full use of the powers he possesses. So far as law, public opinion, and custom are concerned conditions in the United States have been decidedly favorable. There are, of course, some restrictions. There are occupations, of which the professions furnish but a few examples, in which no one is allowed to engage without special authority. Generally speaking, the requirements are designed simply to keep out those who lack the qualifications to do the work properly and in so far as they are of this character the limitation on economic freedom when they imply is not of an injurious nature. Many of the regulations to which industry is subject are intended, at least in part, to protect the freedom of the individual. Such, for example, are the laws against unfair competition and monopoly. Much of the public hostility to large corporations, and especially to those that possess monopolistic powers, is based on the same ground. Unfortunately the way in which large industry has been conducted has often been such as to give some justification to this view. As has just been pointed out, the potentialities of large scale business in favor of economic freedom are great, and when large scale industry is desirable for other reasons it is of vital importance that some method be

found to assure the realization of these potentialities.

It is not only the business units, however, that may have adverse effects on economic freedom. The policies that have been adopted by labor unions, for example, have in some instances been decidedly unfavorable. This is particularly the case when they tend to emphasize the diversity of interest between employer and employee and to create and maintain the belief that the laborer must remain a laborer. On the other hand, labor unions can, and sometimes do, give the laborer much more economic freedom than they take away from him. This may be so, for example, when they protect him from unfair discrimination of one sort or another. Labor organizations, like organizations of business units, have great possibilities both for good and for evil. Rightly conducted they may be among the most effective instrumentalities by which the regulation of industry that is necessary for efficiency can be secured.

The development of ability in individuals is largely a matter of education. So far as formal education is concerned the general principles involved do not differ greatly from those which apply in the case of labor.[2] Of course, the particular sort of training given should be adapted to the end in view, and the most valuable training for labor and for enterprise are not quite the same, though the line between them is not a sharp one. The former deals largely with the technique of a particular phase of industry and is largely concerned with matters of detail. The latter is broader in scope and is primarily concerned with principles and policies.

[2] Chapter VII, §§ 1-2, pp. 148-157.

It is, of course, in reality a form of vocational education, but requires a much more extensive foundation than what usually goes by that name. Not only must more time be spent in the schools, but the graduate must ordinarily spend some years in business before he can hold a highly responsible position. During a large part of this period his earning power is likely to be lower than it would have been had he gone directly into business. Partly for such reasons as these, and partly because of the kind and grade of ability required, it is probable that only a small proportion of those who expect to engage in industry would seek a training of this sort, even if it were made generally available. Those, however, who do receive it and profit by it are able to contribute very largely to the industrial efficiency of the nation.

As regards also the increase of innate enterprising ability little need be added to what has already been said in connection with labor.[3] The only methods that can be adopted are those that have to do with eugenics and with immigration. Neither method should be used to exclude any but those who are undesirable from a national point of view; and the fact that a man is lacking in enterprising ability does not necessarily prove that he is undesirable. In fact, there are a large number of men who can become good laborers, but could not direct industry well under any but the simplest conditions, if at all. The problems of bringing about an increase in enterprising capacity through the encouragement of large families among those who have it are practically identical with the

[3] Chapter VII, §§ 4-5, pp. 161-166.

problems of bringing about an increase in economic capacity of any other sort. A country with large undeveloped resources is naturally attractive to foreign enterprise and foreign capital; but its immigration policy may have an important effect on the character as well as the numbers of immigrants. If the country is politically backward it may find it necessary to grant special privileges to foreigners who undertake the work of development. When the amount of capital involved is large the men who take charge of the work are frequently employees, but they are likely to be men of considerable enterprising ability. If the country is backward only in the sense that its economic resources are undeveloped, foreigners who come to develop the country are very likely to remain, and their descendants to become members of the nation. Such a nation is, of course, likely to offer inducements to foreign labor as well as to foreign enterprise and capital; and among those who come as laborers there will ordinarily be many of great enterprising ability.

§ 2. As has already been pointed out the efficiency of enterprise depends not only on the qualities of the individuals who direct industry but also on the character of the business units. These are partly dependent on each other, but there are independent influences which act on each. Among the most important of the independent influences that act on the business unit are those that have to do with the scale of production and the degree of monopoly. What the effect of these influences will be depends in a large measure on the policy adopted by the government with reference to industry.

In many cases the advantages of large scale production so far outweigh the disadvantages as to make practically necessary one of the higher forms of organization. Some of these require the operation of a single large plant, but do not necessarily imply more than this for their full realization. Such are the advantages which result from large and expensive types of machinery or other equipment, from a high degree of specialization of plant or of labor, or from the ability to turn out large units of product. Other advantages can be obtained through combination, a considerable number of establishments coöperating with each other or being completely merged in one organization. The need of a large plant in such cases is not necessarily implied. An important illustration is found in the case of marketing. To reach a very wide market a large organization is necessary, and in some cases a very wide market is highly desirable. To distribute efficiently the fresh fruits of the Pacific Coast, for example, it is necessary to know the market conditions in a very large number of small sections of the country, and to direct the shipments so as to avoid gluts and shortages. The farms, however, may be relatively small. The Webb-Pomerene Act was passed largely to permit manufacturers and other producers to combine for the development of the foreign trade. Very large combinations, such as the United States Steel Corporation and the International Harvester Company were able to take care of the foreign market in a way that small concerns could not hope to do alone. Again, a very large organization is sometimes necessary for reaching the market as distinguished from finding it

and from the negotiation of purchase and sale. The big meat packing concerns, for example, had a decided advantage in their ability to fill and to dispatch refrigerator cars promptly, and until the recent modifications of the business by a consent decree they have an advantage in being able to ship groceries in the refrigerator cars with their meat. This, be it noticed, was a real economy from a national point of view as well as from their own. A pipe line furnishes a very economical means for the transportation of oil, but the amount of capital required is so great that only a very large company, or a combination of small ones, can afford to construct and operate a pipe line.

The integrated business which, in its complete form, participates in all stages of production from the raw material to the consumer almost necessarily implies large scale production. Even if each stage could be economically conducted on a small scale, the organization as a whole would be relatively large. Generally speaking, however, it is in those industries in which large scale production is economical at one or more stages that integration in anything approaching a complete form is found. The advantages that can be secured under favorable conditions are great. A very large part of the work connected with buying and selling is entirely eliminated. Those in charge of each stage except the initial one can be much more sure that they can get the kind and quantity of material that they need, when they need it, than would otherwise be possible, and so far as the organization as a whole is concerned they can get it at cost. Those in charge of each stage except the final one can know better just

what is wanted in the way of product and where they can dispose of it. In some cases a department or a subsidiary organization can be established to render a service which would be rendered only inadequately or after much delay, if it could be rendered at all, by an independent concern. This is particularly true of pipe lines for the transportation of oil. No doubt a pipe line could be built by an association of independent concerns, but this would be, in reality a loose form of integration. In some cases even the manufacturing costs can be reduced through integration. This is the case, for example, where iron enters the blast furnace in the form of ore and is not completely cooled until it emerges from the rolling mill in the form of steel rails. There are also some advantages of a monopolistic nature connected with integration, but the thing to be noticed here is that there are substantial advantages, even from the national point of view that result from large scale production.

There are, of course, disadvantages as well as advantages in large scale production. Among these, as has already been pointed out, are some that result from a spirit of independence that will lead men to prefer a large share of the control in a small concern to a small share in a large one. Some of the disadvantages, however, are entirely independent of the desires of individuals. The difficulty of management, for example, increases beyond a rather low point with the increase in the scale of production. Not only does the large concern require a greater degree of ability on the part of the men in charge of it, but there is, as a rule, considerable less flexibility, and in some cases this is

important. On the other hand most, if not all, of the advantages of large scale production are either fully obtained after a certain size has been reached or are subject to a law of diminishing returns, so that, even if the disadvantages could be ignored, any further increase in size would bring with it a diminishing increase in advantage. As a result there is in every case a size of maximum efficiency, at which point the advantages and disadvantages of large scale production are balanced. What this size is depends on a great variety of circumstances. It differs very greatly from industry to industry. It differs from one concern to another in the same industry. It differs between different departments of the same concern. In this case, however, duplication is sometimes possible. If, for example, the size of maximum efficiency for the manufacturing plant in a given corporation would be greatly exceeded long before that of the marketing department was reached, two or more manufacturing plants may be established; and in some cases this is done even where there is no question of monopoly involved. Such duplication of plants may bring with it some disadvantages of its own; but the net advantage may still be with the very large concern.

§ 3. While the advantages and disadvantages of large scale production must be carefully distinguished from those of monopoly, the size of maximum efficiency may be great enough to require monopoly for its realization. Here much depends on the size of the available market. If it is small a concern does not have to be very large to supply it fully at a lower cost than could two or more. One cold storage plant, for

example, may be all that would be justified, as an independent business, in a small city. On the other hand, when the amount of goods or services is very large the size of maximum efficiency must be very great in order to require monopoly. This condition appears to be satisfied where the work is largely that of transportation, whether by rail, by pipe, or by wire. It is probably rare, if it occurs at all, among the industrials. It should be noticed, however, that it is not necessary that a concern of the most efficient size be able to supply the entire market in order that the advantages of large scale production may result in substantial monopoly. In many cases it is enough if it can supply more than half; for a concern that is too large may be more efficient, at least from a private point of view, than a concern that is too small.

The relations between large scale production and monopoly are by no means confined to those cases in which one concern is, by reason of its size, better able to supply the needs of the market than are a somewhat larger number. Of great significance is the fact that where the concerns in an industry are large and few monopoly is, generally speaking both more desirable and more easily secured than when they are small and many. An industry in which large scale production is the rule is usually one in which a large proportion of the assets represent fixed investment and an elaborate organization is needed. Efficiency requires that both the assets and the organization be utilized to capacity. The demands of the market are constantly changing. When they are substantially less than the combined capacity of all the producers, competition,

if unrestrained, tends to become cutthroat in character. If a concern fails it is likely to be reorganized and to continue business with reduced liabilities. When the demands of the market are substantially greater than the combined capacity of all the producers there is little need for combination to produce some of the most important features of monopoly. Some of the old concerns, however, are likely to increase their capacity and new ones to enter the field, and thus the foundations are laid for further trouble as soon as the demands of the market fall. The principle applies of course, in all cases in which the proportion of fixed to current assets is large. Such a condition is not only less characteristic of small than of large scale production, but even when it does occur the losses resulting from cutthroat competition are likely to be less. Failure more frequently means the discontinuance of the business, and while the losses of the failed concerns may be large in the aggregate, the losses of those who remain are likely to be less by reason of the removal of their competition.

Of more importance, perhaps, is the fact that monopoly is more easily secured, whether by agreement or by consolidation, when there are a few large concerns than when there are many small ones. The variety of points of view that must be reconciled is less. The men in immediate control of the different units are much more likely to know each other personally. Competition is, upon the whole, more likely to be cutthroat in character; and whether it is so or not, the policy adopted by a large concern is of much more significance to the industry than is the policy adopted

by a small one. Realizing this, the large concern will ordinarily be more ready to share fully in the costs that restraint of competition implies than will a small one. It is easier for the combination itself to discover defections where it is of such a character that defections are possible and to bring pressure to bear on those who are responsible for them. Where an industry is already in the hands of a few large concerns many of the chief advantages of monopoly are already in sight, and some of the lesser ones have often been realized by understandings so indefinite and intangible as to be hardly worthy of the name of combination. Finally it should be noticed that the loss of independence to the men concerned is less when the transition is from the simple large corporation to the combination than it is when the transition is from a close corporation to an open one.

There are some cases in which monopoly, or at least such a restraint of competition as implies the presence of important monopolistic elements in the industry, is highly desirable in the interests of national efficiency. Competition which forces prices below expenses is generally wasteful, for expenses are not likely to be above real costs; and in some cases competition tends almost inevitably to be of this character. It is largely because of this fact, as well as because of the large size necessary for maximum efficiency that railroads, lighting plants, water systems and the like are properly described as natural monopolies. In other cases competition, even though it does not force prices below expenses is itself very costly. The energy spent in elaborate advertising, for example, must be included

among the costs of production; and it should be noticed that the concern that is most successful may be the one that employs the best advertising ability rather than the one that offers the best goods. A thorough knowledge of the conditions of demand and supply is in many cases highly desirable as a guide to producing and shipping policy. Information of this sort can best be obtained by an organization that is not only large but represents all the producers, for in that case it can have all the factors of supply as well as of demand under its observation. Work of this sort can sometimes be done by an independent organization, but when it can it is because each of the producers will readily furnish the information in his possession, and when this is so there is likely to be present a nearer approach to unanimity of action than is directly involved in the collection and dissemination of information.

§ 4. Governmental regulations and governmental activities are among the important factors that determine what sorts of business organization shall prevail in an industry. Pretty surely if it were not for the general incorporation laws, and especially for the privilege of limited liability, there would be far fewer large business organizations in the United States than there are today. The antitrust laws forbid with some exceptions, the formation of trusts and other monopolistic combinations. While these laws have not accomplished all that was intended, they have undoubtedly prevented the formation of some combinations and have limited the activities of others. National banks must be corporations and must have a minimum capital,

depending on the population of the place in which they are located; and under many of the state laws banking is subject to similar limitations. In some cases the government performs services which, though available to all, are really an aid to the smaller concerns, for the larger ones would otherwise have an advantage through their ability to perform these services for themselves. This is true, for example, of some of the work of the Bureau of Foreign and Domestic Commerce. Indeed there are probably few activities of the government in connection with industry that are totally without effect on the character of the business units; and in many cases the effect is of great significance.

Faith in the competitive system as a means of maintaining popular welfare long exercised a profound influence on the policy of the United States and of most of the several states. This faith has been somewhat shaken in recent years, and some exceptions to the laws against combinations have been made, but it is still strong. Corporations and other associations of individuals have not ordinarily been regarded as incompatible with the competitive system so long as they had no appreciable power to restrain trade or to establish monopoly. The provision in the Clayton Act that certain kinds of labor, agricultural, and horticultural associations shall not be held to be illegal combinations or conspiracies under the antitrust laws should probably be regarded as marking a weakening of the faith in competition, though there is some ground for arguing that the Sherman Act was never intended to apply to labor. The Capper-Volstead Law extended still further the right of the farmers to com-

bine, though it introduced some safeguards against monopoly and restraint of trade. Generally speaking, recognition that there are some types of industry that can be conducted with success and economy only under conditions of monopoly has come slowly and grudgingly. It is now generally acknowledged, however, that the competitive system, at least in any comprehensive sense of the term, cannot prevail in certain important industries, most of which are classed as public utilities. It is less widely recognized that the line between natural monopoly and practicable competition is not always a sharp one, and that there are branches of industry that can be in the main, competitive, though they have also some monopolistic elements for which provision should be made. Moreover, while the importance of large scale production, at least so far as it is not seen to imply monopoly, is usually conceded, it does not seem to be generally realized that competition between a few large units differs in many respects from competition between a large number of small ones; and that on this account some special means of regulation may be necessary.

It may be conceded that a somewhat conservative policy with regard to the competitive system is desirable. Under this system, and so far as can be judged largely because of it, industrial progress has been very rapid. In many lines of industry freedom of competition has meant for a large number of those who had ability but little or no initial advantages the opportunity to achieve great personal success by service to the community. A very generally accepted theory is that through it wealth and power are put into the hands

of those who can and will use them well. This theory does not contain the whole truth; but there are in competition some strong tendencies in the direction indicated. Monopoly has no such valuable record of achievement as has competition. Generally speaking, it appears to close the door of opportunity which competition leaves open, and it must be admitted that except so far as opportunity is given within the monopoly itself it usually does so. Under monopoly, if it is complete, there can be no evolutionary struggle between business units. Theoretically a useful form of this struggle can be continued within the monopoly; but how to be sure that it will is an unsolved problem. Under monopoly, if unrestrained, it is usually possible to make profits by the curtailment of service and the increase of prices. The motive for the lowering of costs is not absent, but it is weaker than when prices cannot be raised. Regulation is difficult to make wise in its immediate aims and effective in its operation.

There is much reason for thinking, however, that the policy adopted in the United States has been too conservative. Recognition of the national advantages of restraint of competition, other than the prohibition of such noneconomic methods as violence and fraud, and of monopoly, has, in general come only after the evidence of the failure of competition has proved to be overwhelming. In the meantime the losses resulting from the effort to maintain competition have been great. Where such efforts have been continued they have often met with but limited success. Monopoly and restraints of competition have grown up in spite

of them. In some cases these have taken the form of secret agreements. In others, as for example, many railroad agreements as to rates before the Transportation Act of 1920, the administrative department of the government seems to have simply ignored them. In still other cases combination has taken the form of great consolidations the illegal character of which is difficult to prove. Mere size is not condemned by the law, and probably could not be condemned without an important concession to inefficiency that could be easily seen.

If monopoly and restraint of trade carried with them no important national advantages the failure of the policy of suppression would simply justify continued efforts to solve the problem of making it effective. It is generally conceded, however, that as regards some important lines of industry this is not the case; and, as has already been pointed out there are strong reasons for thinking that there are many others in which some degree of monopoly is desirable. In so far as there are the policy of suppression should be supplanted, at least in part, by a policy of control. The problems involved are difficult, and even in those cases in which monopoly has long been recognized, they are largely unsolved. It hardly seems likely, however, that they are more difficult than the problems of maintaining competition where there are important elements of monopoly; and, in any event they must be solved if the highest degree of efficiency is to be secured.

CHAPTER XIV

THE REGULATION OF ENTERPRISE

§ 1. A VERY significant consideration is to be found in the fact that joint action, even in regard to such matters as prices and output, does not necessarily imply any great degree of ability to raise prices above the cost of production. Price conferences, suggested price lists, the exchange of price information, and the like have received much attention from the Federal Trade Commission and its predecessor, the Bureau of Corporations [1] in connection with their studies of monopoly and restraint of trade. Now, conference and knowledge of the facts are practically necessary for monopolistic action of any sort; and proof of joint action may be an important link in the chain of evidence against illegitimate business practices. In some cases the methods suggested may be sufficient to bring about a very considerable degree of monopoly. Where, for example, there are only a few concerns in the industry, each having a large proportion of the total output, and where the relations between them are friendly, conferences, suggested price lists, and the like may be

[1] See, for example, the reports of the Federal Trade Commission on the Pacific Coast Petroleum Industry, Part II (1921), and on the Causes of the High Prices of Farm Implements (1920), the Report of the Bureau of Corporations on the Lumber Industry, Part IV (1914), and the Report of the Federal Trade Commission on Lumber Manufacturers' Trade Associations (1922).

effective means for greatly reducing or eliminating competition.

It does not follow, however, that any, or all, of these methods is necessarily incompatible with competition of the most useful sort. No doubt they have an effect on price: unless it was believed that they did they would not be adopted. The effect, however, may be to give to each member of the industry an intelligent idea of what the conditions are, and some suggestions as to what would be a wise policy for each to follow where each is dependent for success on the success of his own business. The costs of production, from a national point of view, may be reduced and the selective forces made but little, if any, less effective in giving advantage to those whose costs are lowest.

A striking feature of these methods which illustrates their weakness is the difficulty of inducing all concerned to follow the prices or the policies suggested.[2] Any price materially above that warranted by expenses can be maintained only by curtailing profitable business. If the number of concerns is at all large, and sometimes if it is small, there are very likely to be some concerns in the industry which will seek to increase their business

[2] This is fairly well brought out in the first three reports mentioned in the last footnote. The fourth report—Lumber Manufacturers' Trade Associations—deals with the methods recently used by some of these associations. It does not go into anything like the same detail as the earlier report by the Bureau of Corporations. The period covered, 1915 to 1921 or 1922 was clearly abnormal. It is clear that prices and, at least in the case of the Southern Pine Association, profits were high. The Douglas Fir Lumber Manufacturers' and Loggers' Association and the Western Pine Manufacturers' Association, the two others that are most fully considered, derived much of their power from the fact that the ownership of timber was highly concentrated.

even if, in order to do so, it is necessary to cut prices. Moreover, if such arrangements are not reënforced by other considerations more favorable to monopoly potential competition can easily become active. In either case the higher the profit the greater is the inducement to independent action. Notwithstanding such elements of weakness, however, the danger of abuse is sufficiently great to make publicity and a certain measure of supervision desirable. Such conferences and general understandings should hardly be regarded, under ordinary conditions, as unlawful agreements.

Even the definite agreement, carried in some cases to the extent of pooling, may contribute to national efficiency. Where natural monopolies are concerned such agreements may easily be the most desirable alternative to a higher degree of combination or to destructive competition. The clause in the Transportation Act of 1920 which permits pooling by the railroads, subject to the approval of the Interstate Commerce Commission, may be regarded as a distinct concession to this point of view. So far as its practical effects are concerned its importance is probably much less than it would have been had the concession been made before railroad combination had proceeded as far as it has. In certain emergencies pooling on the part of concerns that are normally regarded as at least partly competitive may have great advantages. Shortly after the United States entered the Great War the Federal Trade Commission itself recommended a pool, in the hands of the Government, of all coal and coke.[3]

[3] Report of the Federal Trade Commission on Anthracite and Bituminous Coal (1917), p. 20.

The motive for keeping down the expenses of production, and, as an incident thereto the costs, is not ordinarily destroyed by the agreement, even when it takes the form of a pool, but unless the possibility of raising prices is narrowly limited by regulation or in some other way this motive may be weakened. As regards those parts of the business that are conducted independently low costs for any member usually mean profits which do not have to be shared with the rest. This is obvious in the case of market and output pools. In profits pools a common method is to calculate the profits that are to be pooled on an assumed cost which is uniform for all. Another method is to assign a particular piece of work to that member of the pool who will pay most for the privilege of doing it at a price fixed by the pool. This was the method adopted by the Addyston Pipe combination for dealing with a certain class of contracts. In such cases low costs are obviously to the advantage of the successful bidder. To that part of the business that is conducted by the pool itself some of the general principles of monopoly apply, at least when the danger of competition from the outside is not an important consideration. Low expenses mean more profits than high expenses, but if prices are raised profits can still be secured even though expenses are high. Generally speaking, however, in those cases in which pooling is justified from a public point of view the costs of competition are likely to be high, and these costs can be greatly reduced by the pool.

The pool, and still more the simple agreement without pooling features, has some important elements of

weakness. When it is illegal, as most forms of pools except those which are clearly without important effects on prices are in the United States, it is decidedly unstable. It is still unstable when it cannot be enforced even though the parties to it cannot be punished. It should be noticed, in passing, that the special weakness resulting from the impossibility of enforcement rests partly on the fact that a business concern may dishonor its engagements with impunity, a circumstance which is likely to have some serious adverse effects on business, whether from a private or a public point of view. Even when the pool can be enforced it is, in substantially all cases, limited in time, and the policy of its members is often influenced by their knowledge that it will not continue indefinitely. In some cases they will exceed their allotments, and pay the penalty, in order that they may demand increased allotments if a new pool is formed after the old one has expired or that they may be in a stronger position if they are to operate independently. High prices resulting from the activity of the pool not only offer members the temptation to evade the terms of the agreement if they can; but they furnish a strong inducement to new concerns to enter the business. The success of a monopolistic pool is dependent on the inclusion of a large proportion of the industry. The new concerns may be willing to become members, but to admit them means to give them allotments and to reduce those of the old members. Notwithstanding such elements of weakness, however, pools, under certain circumstances make possible a substantial degree of monopoly.

§ 2. While there are some cases in which industry

can be conducted most efficiently by monopolistic organizations, and others in which there are important monopolistic features even though the business is in the hands of a number of concerns that are largely competitive, it does not follow that monopolistic powers would be allowed to remain in private hands without public regulation or even that they would be allowed to remain in private hands at all. Monopoly is sometimes necessary for the highest efficiency, but it is rarely, if ever, sufficient to assure it.

There are two main ways in which the government can exercise control over industry: operation and regulation. Either of these involves considerable difficulties. It must not be supposed, however, that these difficulties can be escaped by the prohibition of all combinations that possess any substantial monopoly power and the suppression of all that appear. That policy has been tried and has not only been costly but has been far from a complete success. In some cases, especially in connection with those in which transportation is a large element it has been abandoned in whole or in part; and more recently a few other exceptions have been made. The "trust problem," however, is still far from solved. This is partly because the necessity, or at least the legitimacy, of large scale production is recognized. As has already been pointed out competition works very differently where there are a few large concerns from what it does where there are many small ones, and concerted action is more easily secured.

The mere fact that the suppression of monopoly is difficult is not, of itself sufficient proof that such a

policy is unwise, or even that it is more difficult than any other policy that is worthy of consideration. Monopoly is not ordinarily desired by business men solely because greater efficiency can be secured by means of it; and there are many cases in which it is decidedly unfavorable to efficiency. The conditions in each industry should be examined with a view to determining what policy should be applied to it. Even where it is found that some element of monopoly is desirable it does not follow that the policy of maintaining competition should be entirely abandoned. The lower forms of combination commonly permit much competition among the combined concerns, and even within the great consolidation there may be a considerable degree of competition. Where there is no legitimate reason for combination no concession should be made. In some cases, however, permitting combinations, under proper control is not only favorable to efficiency but makes it easier to maintain competition where it is desirable.

The fear of monopoly and the difficulties of regulation are among the considerations that have led to the demand for governmental operation. Where this policy is adopted the difficulty of exercising control is much reduced. The government has practically all the rights of the private owner as well as those of the regulating authority, and consequently there is little chance for a conflict between them. The facts needed for intelligent regulation are much more easily learned than when the industry is in private hands, the power to give orders is much less limited by private rights, and the orders that are given are more easily enforced.

Out of this very situation, however, arises a difficulty of a different sort. The private enterpriser represents a special interest, not only in the sense that it is his interest as distinguished from that of others, but in the sense that he is the advocate of a particular interest of the nation. It is because his interest and the national interest are not identical that regulation is needed. Under some circumstances, competition, limited only by the prohibition of such uneconomic methods as fraud and coercion, provides sufficient regulation. In other cases it does not, and some sort of control must be exercised. In deciding what policies should be adopted by the regulating authority it is a decided advantage to have advocates of the interest of enterprise as well as advocates of the other interests concerned. Undoubtedly there are serious difficulties in regulation, as opposed to operation, and undoubtedly no satisfactory solution of the problems involved can be found quickly. Governmental operation, however, while it removes some of the difficulties, simply introduces others.

There is, of course, a field in which governmental operation of industry is desirable. From one point of view a modern government may itself be regarded as a big business; and many of its most important activities have a distinctly industrial, as well as a political character.[4] The chief product of the navy, for example, is national security; and to obtain this product the organization of land, labor, and capital on a very

[4] Upon this fact is based one of the arguments in favor of giving members of the Cabinet seats in Congress. See 115 Commercial and Financial Chronicle (July 8, 1922), pp. 120-121.

large scale are necessary. There can be no doubt, however, that distinctly governmental functions must be performed by the government itself, even though the industrial problems involved be very difficult. As regards the conduct of industry where it is not thus bound up with distinctly governmental functions, but where control of some sort is needed, a wise choice between operation and regulation must depend upon a number of considerations, due weight being given to each. The most important of these are the character and degree of control that should be exercised, the difficulty of the industrial problems involved, the special advantages or disadvantages that the government has in dealing with them, and the extent to which the needs of the industry are so generally recognized that no special advocate of the interests of enterprise is needed.

The relative importance of these considerations differs greatly in different cases. To consider them in detail would require more space than can here be given to the subject, but a few illustrative comments are justified. In certain lines of investigational work the government ordinarily has a tremendous advantage in its authority to demand the facts from those who know them and often in the belief that the facts collected will not be used for the exclusive benefit of a few favored concerns. There are cases in which services are required in the public interest, but the opportunity to render them does not appeal to private enterprise. Lighthouses are commonly mentioned in this connection, the chief difficulty being that it would be impracticable for private enterprise to collect adequate pay

from the beneficiaries. If this were the only difficulty the work might be done by private enterprise under government contracts, but the need for control is great and the industrial problems involved are comparatively simple. In some cases complete, detailed and unquestioned control is of outstanding importance. This consideration alone would justify the operation of the mints by the government, even if the industrial difficulties were great. A more doubtful case is that of furnishing a city's water supply. It is necessary for the city to have a large measure of control as to quantity, quality, and price. In some cases there are serious technical difficulties, especially where mountain streams must be dammed or the water brought from a considerable distance. Generally speaking, however, the difficulties are less than those connected with the other great public utilities. Most of the problems with which the directors must deal are fairly simple. Upon the whole, public operation seems to be fully justified under the conditions prevailing in most American cities. In the case of railroads control is a matter of great importance. Some public powers must be exercised, especially in connection with the right of eminent domain. On the other hand the industrial problems involved are exceedingly difficult and the costs of doing business are necessarily great. The controversies that arise between shippers and the railroads and between labor and the railroads are so serious as to argue strongly for a group that represents the national interests involved in the railroads themselves.

A wise policy of regulation would require the exer-

cise of some judgment on the part of the regulating authority as to the cases in which combination implying some degree of restraint of trade or of monopoly should be permitted, as to the forms that such combination might take, and as to the way in which its powers might be exercised. It is safe to say that in a large proportion of the cases that would arise an agreement of some sort would be all that would be needed. The enforcement of such an agreement would be under the control of the regulating authority. To permit the lower forms of combination would in many cases weaken the motive for forming the higher ones, especially where the latter were not made lawful. What is perhaps of even greater importance is the fact that to make it possible to secure the legitimate advantages of combination, under regulation, would weaken the motive for secret arrangements. There would doubtless be some cases in which the higher forms of combination would be desirable, and others in which there would be only a few large corporations which could easily make secret agreements. In such cases it must be admitted that control would be difficult. As regards all forms of combination a policy of regulation would doubtless involve considerable expense, but it must be remembered that the present policy of suppression is neither cheap nor very effective. Probably it would be desirable, even in the interest of efficiency itself, to impose most of the cost of regulation in each case on the regulated industry.

§ 3. In a very large number of instances the agencies that perform those industrial functions in connection with which questions of restraint of trade or

of monopoly are most important, are, or may be, separately organized. This is obvious in the case of the lower forms of combination. The association, for example, is distinct from its members. Even in the great consolidation special functions are commonly assigned to different subsidiary companies. As a consequence the nation may adopt different policies for the control of the agencies performing different functions. If separate appropriate agencies do not already exist their organization may virtually be required as a condition of engaging in the business. There is, for example, nothing extraordinary in the requirement that the business of banking shall be done only by corporations specially organized for that particular purpose. Section 6, of the Clayton Act provides that the anti-trust laws shall not be construed to apply to certain types of labor, agricultural, and horticultural organizations; but these organizations must conform to certain definite requirements. The Capper-Volstead law extends still further the right of farmers to form combinations, but the character of such organizations is prescribed and they are under the supervision of the Department of Agriculture. Under the Webb-Pomerene law business concerns may form associations to engage in the export trade, but they must be separate from the concerns organizing them and are under the supervision of the Federal Trade Commission. As regards certain industrial functions not only separate but independent agencies might be required. Such functions might be performed either under the direction of private enterprise, subject to regulation, or by the government itself.

Some of the great cooperative [5] agricultural organizations, such as the California Fruit Growers' Exchange and the Sun Maid Raisin Growers, Inc., (successor to the California Associated Raisin Company), furnish excellent illustrations of combinations in which different functions are segregated in such a way as to make regulation comparatively easy in those cases in which it is most likely to be needed. They are primarily great marketing organizations. Their chief work is to act as joint sales agencies, though they engage in some other activities. In order to do their main work most effectively they must have a large volume of business; and the knowledge necessary for the distribution of their products to the best markets can ordinarily be secured only through a substantial degree of monopoly. As a matter of fact they handle a very large proportion of the products in which they are interested. In the work of marketing they render services that are distinctly valuable from the national as well as from the private point of view. The chief evils that may arise have to do with the control of the supply. So long, however, as their membership is voluntary; so long as they must find a market for all the good products their members send to them, due care being taken to prevent spoilage or destruction; and so long as their treatment of such competitors as they have is fair, they have little power to raise prices above the cost of production. It is chiefly in connection with such matters as these that regulation is

[5] As here used the term "coöperation," is not limited to associations organized on a non-stock basis. The fundamental consideration is that these organizations are owned by the farmers and operated in their interest as farmers.

needed. To be sure they may advise members as to market conditions, and may even recommend some restriction of production. Knowledge of market conditions, however, is something that the growers should have; and so long as the number of growers is large and membership is voluntary there is little danger of concerted action that will result in excessive prices.

The passage of the Webb-Pomerene law may properly be regarded as a recognition of the advantages of large combinations for the export trade. It may be conceded that one influence in favor of its passage was the idea that monopoly may be justified in the foreign trade, though not in the domestic, especially in view of the fact that the policy of most nations is less unfavorable to combinations that may be able to exercise monopoly powers than is that of the United States. Of more significance was the argument that American exporters had to compete with the great combinations permitted by the laws of other countries, and that for this reason combination on their part was necessary. Much attention was given, however, to the difficulties, other than those of a purely competitive nature, which in many cases interfered seriously with the development of foreign markets by any save very large organizations. It seems pretty clearly to have been felt that to permit associations for this purpose would not only aid in the development of American export trade, but would greatly weaken an important motive for the formation of combinations whose business would be largely domestic. It is extremely doubtful that the law would have been passed had it not been believed that the activities of export associations

could be restricted to the field asigned to them. The situation clearly illustrates the position here taken: that to permit combinations, subject to proper regulation, in those cases in which they have real advantages from the national point of view, would both make easier the problem of regulation and narrow the field to which it would have to be applied.

Separate organization of agencies for the performance of particular functions does not necessarily imply independent organization. The agricultural cooperative associations and the Webb-Pomerene law associations are separate from their members but are dependent upon them. In the great integrated trusts the different stages of production are ordinarily carried on by subsidiary companies. Integration, even in such cases, does not necessarily play a great part in bringing about or in maintaining monopoly, but under some circumstances it may have an important influence in that direction. In the first place the conditions may be highly favorable to monopoly in some important department of the business, and the control of that department may result in a monopoly of the business as a whole. It is largely because of this that the attempt has been made to separate the railroads and the coal mines. It was presumably for similar reasons that the big meat packers were required, subject to qualifications which have little bearing on the principle involved, to withdraw from the public stockyard and the public cold storage businesses. In the second place the scale of production required for efficient operation in one department may be so large as to support combination amounting to monopoly in other departments. The

Federal Trade Commission, for example, found that the steel interests of the International Harvester Company greatly strengthened its monopolistic position, and recommended not only that the McCormick and Deering lines be separated from each other, but that both be separated from the steel business "which is obviously too large to be left with either of them." [6]

The Federal Reserve System furnishes one of the best possible examples of regulated monopoly in a special department of a business and of competition in other departments. While the existence of a large number of independent banks met with general approval in the United States, experience clearly showed the need for a high degree of centralization of certain banking functions. Largely to secure such centralization, without at the same time weakening the position of the independent banks in other respects, the Federal Reserve System was adopted. There are twelve Federal Reserve Banks, all subject in important respects to the Federal Reserve Board, which is an exclusively governmental body. Besides its direct regulative powers the Board elects a third of the directors of each of the Federal Reserve Banks. While each of these banks has a considerable measure of independence as far as the way in which it does business is concerned, each has its own territory and they are not, in any important degree, in competition with each other. The system is intentionally so devised that there is little competition between the Federal Reserve Banks and other banking institutions. Strictly the Federal

[6] Report of the Federal Trade Commission on Causes of High Prices of Farm Implements (1920), p. 674.

Reserve Banks have not a monopoly of note issue, but the limitations that have long been imposed on the other banks are severe; and it is contemplated that eventually all the powers of issue will be in the hands of the Federal Reserve Board and the Federal Reserve Banks.

It is possible that in certain cases efficiency may suffer, to some extent at least, as a result of forbidding industrial concerns to include in their scheme of integration an important department of the business. Where, however, the department is owned and operated jointly by a number of the concerns that are to make use of its services the loss to the one that would otherwise control it may be more than offset by the gains to the others. It must be admitted, however, that it is a natural result of competition that the motive for the most efficient operation of that department is weaker when a number share in its benefits than when they are all reserved for one. When the department in question is not only separately organized, but is entirely independent, the motive for efficient management may be strong, but many of the economies of integration may be lost. Even so, independent operation may properly be required where the difficulties of joint control or of regulation or both are particularly great. What policy is best as regards any department of any branch of industry must depend on the circumstances of the particular case. This much, however, can be said with confidence: To permit, and in some cases to encourage, combination, subject to proper limitations as to its character and scope, is not only favorable to efficiency but to effective regulation.

§ 4. There is little reason to doubt that enterprise will be subject to a greater measure of regulation in the future than it has been for a century or more in the past. Industry has already developed far in the direction of large scale production and of monopoly and the indications are fairly clear that, unless steps are taken to prevent it, development in this direction will continue. Not all departments of industry have been affected in the same degree; but the general character of the movement is unmistakable. Large scale production and monopoly make possible a great concentration of wealth and power in the hands of the few; and such concentration, when unaccompanied by responsibility to the nation at large, is not likely to be conducive to national welfare. Progress indeed requires a certain measure of inequality, for control must be largely in the hands of those who can use it well. Power for good, however, implies power for evil; and it is probable that the interest of no one class of the people is identical with that of the whole nation. Where there is unregulated monopoly in private hands the danger that some will gain at the expense of others and that the nation as a whole will be injured is very great. Either to check the movement towards large scale production and monopoly or to impose responsibility on those who have power implies regulation.

Many of those who wish to see the movement toward industrial consolidation stopped, if not turned backward, do not think of the policy which they advocate as one of regulation. They think of it rather as one under which free competition among a considerable number of business units would be maintained. Experience has

shown, however, that in many lines of industry the large highly organized concerns tend to predominate. Unless this is due to some obstacle that can be removed—and there is little ground for believing that it is—free competition of the sort desired is practically impossible. It matters not in this connection whether the success of the very large concerns is due to superior industrial efficiency, to monopolistic agreements, or to unfair methods of competition. In so far as it is due to superior efficiency their predominance can be prevented only by such regulation as would make the conditions relatively less favorable to them—a condition which is hardly compatible with free competition. Monopolistic agreements and unfair methods of competition are so numerous in kind and so subtle in many of their forms that elaborate regulation is necessary to discover and prevent them.

The problems of regulation are far from simple; but success in their solution is one of the important conditions of national strength and welfare. Regulation may be either protective or constructive in character. Protective regulation is designed to prevent evils which would arise in industry based on private initiative but, if strictly protective, assumes that no direct aid to private initiative should be given. One of the chief dangers of such regulation, especially under a democratic government, is that it will be used to prevent improvements in industrial methods. Under almost any conditions the spirit of conservatism would require that some evidence be offered as to the superiority of new methods or new institutions over the old before they are generally accepted. Such a policy is

essentially sound, but evil is likely to arise when the evidence required must be overwhelming before the new are permitted. Where the new threatens to displace the old all those who are interested in established conditions are likely to oppose it as strongly as possible, and under a democratic government their influence will often be great. Another serious danger is that excessive restrictions will be imposed on one class or group in favor of another. Where regulation of prices or profits, for example, is attempted, it is very likely to be unduly favorable to those who can exert the greatest influence on the government. What may be favorable to a particular group in the short run may prove to be decidedly unfavorable, even to them in the long run, but they are often very short sighted.

The last named danger seems to have become a serious evil in the case of the railroads; though it must be admitted that not enough evidence is at hand to make it possible to speak with entire confidence. For many years rates were rather rigidly kept down by the Interstate Commerce Commission though expenses, especially for labor, were known to be rising. It is, perhaps, fair to say that overwhelming proof of the needs of the railroads for large revenues was required before any substantial increases in rates were allowed. To say that for some years the net earnings of the railroads have been moderate would be something of an exaggeration. That the Interstate Commerce Commission was not acting contrary to popular wishes in the matter is very strong suggested by the present agitation to bring about a reduction of rates, with very little regard for railroad earnings. It is prob-

ably true that the popular feeling against the railroads is partly a result of grievous wrongdoing by some of them. This may help to explain, but it does not justify. Certainly it does not alter the fact that the railroads in general were in a rather poor condition when the great emergency of the war came upon them; and they are not now in a position to handle a very large amount of traffic as well as might desired. It is sometimes contended that the difficulties of the railroads are to be attributed very largely to unduly high expenses and bad management, but there is no sufficient evidence presented to support this contention. Upon the whole there seems to be little reason to doubt that among the circumstances which have resulted in the unfortunate condition of the railroads is the regulation to which they have been subjected. Regulation is not likely to be either fair to the railroads nor satisfactory in its effects on the service so long as the Interstate Commerce Commission is generally regarded, as it certainly is by some, as a body whose function it is to protect the public from those who control the railroads. Those who own and operate the railroads are a part of the public; and their interest is, in a very large measure, a national interest.

Constructive regulation is that which serves directly to make national industry more effective, as opposed to that which protects certain members of the community from injurious activity on the part of others. Conspicuous as an example of regulation of this sort is the Federal Reserve System, to which some reference has already been made. Constructive regulation has its dangers quite as truly as protective. The desire for

the business stimulant of inflation has led to some pressure on the Federal Reserve Board which, happily, has been resisted. There has also been pressure on the government to make use of the Federal Reserve System in a way which was intended to benefit certain classes of the people, but was hardly in accord with the principles of sound banking. Constructive regulation is, of course, often associated with protective, and the same piece of legislation may have some of the characteristics of each kind.

Regulation should not, of course, be confined to enterprise. As has been suggested in connection with the other factors of production it should be applied to them as well. Legislation is, perhaps, the most obvious method of providing regulation, but to be effective at least in a democracy, legislation must rest on sound social ideals. In some cases social ideals may be realized through other means than legislation, such, for example, as ostracism and the boycott. As regards all the factors of production the dangers of regulation are great, but so are the dangers of inaction. Wise regulation must rest on knowledge and understanding.

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