

PROGRESS AND THE INDIVIDUAL¹

DURING the last three or four years there has been a tendency to question almost every phase of what we call progress and to doubt whether the sum total has been, in reality, a gain. This is but natural, in fact it could not be otherwise in these trying and discouraging times. I wish to speak of this subject today, but I shall confine my remarks, chiefly, to the sphere of material progress, to the direction in which it seems to me it has gone and in which it is likely or desirable that it may go. In the third chapter of Macaulay's *History of England* we have an excellent example of the merit of taking stock after a period of active changes. I should like to adopt as a basis for my discussion a short paragraph from the introduction of that chapter, which reads as follows:

In every experimental science there is a tendency toward perfection. In every human being there is a wish to ameliorate his own condition. These two principles have often sufficed, even when counteracted by great public calamities and by bad institutions, to carry civilisation rapidly forward. No ordinary misfortune, no ordinary misgovernment, will do so much to make a nation wretched, as the constant progress of physical knowledge and the constant effort of every man to better himself will do to make a nation prosperous.

I think it is important for us to remember that he could say this even in the face of such conditions as obtained at the time of Charles the Second, after the difficulties and disturbances that had torn England for many generations,

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Progress and the Individual 171

greater difficulties or at least more continuous than any we have known. On the other hand, the ninety years that have passed since he wrote those words have brought greater changes than have occurred during any previous century.

I

Since the so-called industrial revolution, all industry has had an unprecedented growth, and the rapidity of this growth coupled with lack of previous experience, has inevitably resulted in many mistakes, much waste, error, injustice. Also, each industry has had its periods of rapid expansion and improvement and its consequent periods of reaction. But I believe that these phenomena are not inherent or dominant, that they are merely the casualties of an experimental period.

Recognizing the tendency of experimental science toward perfection as a most important factor in progress and prosperity, I should like to illustrate it in the light of a specific field of endeavor, the one with which I happen to be connected, transportation. And I feel justified in doing so, not chiefly because it is the one with which I am most familiar, but because it has, I think, more than any other, a special and profound relevance to progress, to the development of a nation, to the very character and form of a civilization. It is not an accident that the greatest empire of antiquity should have been the one that had the best system of communication. It was upon good roads that the Roman conquerors wisely relied to hold together their vast empire.

For many centuries, however, there was no further improvement in land travel. In fact, there was retrogression, for after the Roman time the policy of building and maintaining good roads was to some extent abandoned. And until the beginning of the nineteenth century there was

no improvement whatever in methods and means of conveyance over such roads as existed. There were the pack saddle, sled, and travois, the cart, wagon, coach, and nothing else. Steam had been known for two thousand years but until a little over a hundred years ago it was not applied to commercial carriers.

North American Indians did not even know the wheel, but packed or dragged their burdens on land. They built some ingenious water craft, however, the best known being the birch bark canoe and the dugout. Narratives of early western travelers report the Mandans using curious round boats made by covering basket-like frames with buffalo hides, from which the boats were called "Bull boats." I had supposed that this was an invention peculiar to our Indians until I came across a passage of Herodotus describing transportation on the Euphrates, which reads as follows :

Their boats which ply on the river and go to Babylon are all of skins, and round. They make these in Armenia, higher up the stream than Assyria. First they cut frames of willow, then they stretch hides over these for a covering, making as it were a hold; they neither broaden the stern nor narrow the prow, but the boat is round, like a shield.

This is an excellent description of the "Bull boats" of the Upper Missouri and is one of many examples of identical solution for the same problem in widely separated regions. Transportation by land appears to have lagged considerably behind that by water in the early days. This was due in part to lack of suitable motive power and in part to the absence of roads. The winds and the waterways furnished superior avenues for commerce, although there were caravans from early times. Probably, as I have said, the first roads worthy of the name were those built by the Romans.

The Appian Way was a triumph but after it more than two thousand years elapsed before McAdam, in the first

half of the nineteenth century, introduced substantial improvements in road building. The necessity for a smoother and more permanent way to accommodate the steam locomotive was met at first by the use of iron straps on wooden rails or stone blocks laid end to end. Then faster and larger locomotives required better track and "T" rails supported on wooden cross ties became the conventional design.

The appearance of the railroad on the scene just at the time when it entered—in the early nineteenth century—was a vital and determining factor in the history of our country, for it provided the essential bands which tied together effectively and permanently the remote sections of the country and firmly established the national unity which otherwise would have been very difficult, if possible at all. Railways became the binding ties of commerce.

Throughout his later life, when he was not engaged in leading armies or serving as President, George Washington showed great concern about the establishment of better communication between the vast fertile Ohio and Mississippi River valleys and the Atlantic seaboard states. I do not think the courage of the man ever was shown to better advantage than when he was planning these overland trade routes as a means of holding the territory west of the Alleghenies to the Union. He well understood and stated that national allegiance was likely to follow commerce, and commerce between that great region and other nations was comparatively easy by means of the Ohio and Mississippi rivers which lead to the Gulf. Rivers and canals were the predominant carriers in that period. To undertake to compete with this great water system by means of portage roads over the mountains required a dauntless heart but it was undertaken by Washington in the same spirit that he had waged the War of Independence, and in that spirit the conquest was

won. It was won at last by means of railways. Three great eastern trunk lines, the Pennsylvania, Baltimore and Ohio, and Chesapeake & Ohio, followed those portage routes when they were built, as they do today. The westward surge of population started shortly after the Revolutionary War and of course moved by highways and waterways at the beginning. One of the most significant projects ever supported by our Government was the National Highway, or Cumberland Road as it was sometimes called. Begun at Cumberland in 1812 and headed for St. Louis, it had about reached Indianapolis in 1838 when Congress declined to make further appropriations for its continuation because railways were being built so rapidly.

Approximately twenty years were required as an experimental period after the first use of the steam locomotive until there came a general acceptance of the superiority of the railways for handling goods and for travel, which finally did come about a hundred years ago and soon the great migration was transferred quite automatically from the highway to the railway. The Englishman, George Stephenson, very properly is given place among the earliest railway pioneers, but the names of some Americans rank along with his, John Stevens, Oliver Evans, Benjamin Dearborn, and others. England had used railways in mines and also had better facilities than America for building locomotives and manufacturing rail. All that advantage was overcome, however, as the possibilities of the new form of transportation were grasped, which did not take long, for there was more imagination among our people than in England, and the vastness of the country to our westward provided ample stimulation.

From 1835, the building of railways went ahead with great rapidity in all parts of the country east of the Mis-

souri River, and by 1850, when the importance of California and the Oregon Country was fully understood and American enterprise already had projected the Panama Railroad across the Isthmus, enough had been learned about the operation of steam locomotives to give impetus to the plan of extending the railways westward to the Pacific.

An Act of Congress in 1853, directing exploration of the routes by which such railways could be built, was a tardy recognition of their importance. The report of these surveys, consisting of thirteen large volumes of Congressional Records, taken as a unit constitutes probably the most important "source material" on the western United States. The feasibility of building, not only by one, but by any one of several routes across the great Rocky, Cascade, and Sierra Nevada ranges was definitely established. The surveys were under direction of Jefferson Davis, Secretary of War, and the young army officers who made them were ten years later among the leaders in the Civil War. Factional differences which were arising between the North and South at the time of the surveys, delayed the building of the railway. Not until 1863 was the construction actually begun. It was completed in 1869—as Union Pacific Railway east of Great Salt Lake, and Central Pacific Railroad west to San Francisco Bay—along the trail of the traders, Indian scouts, and overland pioneers. Soon others were undertaken following the various routes reported in the Official Pacific Surveys.

By 1860 railway enterprises had multiplied until there were four hundred sixty-three of them in eastern and southern United States, and one line, now a part of the Burlington System, extended as far west as the Missouri River at St. Joseph. There were 30,794 miles of track but no uniformity of standards. Indeed there were at least twelve different gauges, some as wide as six feet or more. The pro-

posed transcontinental line and the debates concerning it focused attention on the nationwide character of the railway system and the importance of being able to transfer cars conveniently. Universal interchange of cars was a long time in coming, but it came eventually and this happened through consolidation of the many adjacent lines into compact systems and the building of connecting lines.

The width of track frequently was fixed accidentally according to circumstances. This was true, of course, in the first instance when rails were adapted to handle the English carriage. The story of Ohio's first railroad, begun in 1835 at Sandusky, is similar. The question was to get a locomotive. The one finally obtained had wheels four feet ten inches apart, and the track was built to fit it. As the line was extended and branches were built, the legislature passed a law making four feet ten inches the standard for the state, and as the rail network grew, four foot ten inch track was carried beyond Ohio.

The so-called "battle of the gauges" was settled by the first transcontinental line. It was decided to leave the width of gauge to President Lincoln and he chose five feet. Members of Congress, however, were besieged by the advocates of the many different widths and reopened the question, finally making four feet eight and a half inches the legal gauge for the Pacific railway. It soon became the standard in this country. Incidentally, while it is a good and practical gauge, I am of the opinion, in the light of later developments, that it would have been better for the railways now and in the future if Abraham Lincoln's choice of five feet had been accepted.

The growth of the transportation plant from the Civil War until the beginning of the twentieth century consisted almost wholly of building more railway track and that was

exceedingly rapid. It is notable that the conquest of the frontier proceeded at a constantly accelerating pace, more being accomplished in the last half of the nineteenth century than in the preceding three hundred years.

Not very much attention was paid to the economics of railway operation until the '90's, when refinement and perfection of methods and facilities began in earnest. I believe that James J. Hill was the first to put into practice the building of lines on the lowest possible grades and to study transportation methods with a view of moving the most ton miles for the least cost. This meant in some cases the expenditure of more money for the construction of a line at the outset, but the added first cost was justified by the saving in operation. He enabled people to settle the Northwest and helped them with the lowest railroad rates that ever had been known. Thus he earned the title of "Empire Builder." When Mr. Hill died in 1916 the railway plant had been virtually completed so far as the total road mileage is concerned. Some new lines have been built and many additional tracks have been laid but the total miles of road in the United States has been declining since 1917.

Let us pause to consider the significance of these events. Pack-trains, travois, canoes, ox-carts, stage coaches, river boats, conestoga wagons, and prairie schooners passed across the stage and disappeared or were relegated to very minor parts. Each step forward caused an upheaval in existing conditions. The old order resisted every change and hardship resulted for many who had staked their all in enterprises which became obsolete over night. There were many heart aches at giving up the old and many hard lessons of experience in perfecting the new. Long and serious discussions were had as to whether the newer methods would corrupt

the morals or otherwise, and whether it would be sacrilegious to run vehicles as fast as twenty miles an hour. We read how one scientist demonstrated mathematically (to his own satisfaction) that the steam locomotive could not be operated successfully on an inclined plane—although it might propel itself up a slight grade, it could not pull any load there; how the operation of the first train on an early railway resulted in a fatality, which was deemed portentous; how the first locomotive built in this country had a boiler explosion because the temperamental fireman disliked the hissing sound of the safety valve and sat on it to get rid of the noise; and many other incidents which seem quaint and amusing to us now. It was the way of progress—a hard way for some but no power could stop it if it would. It is significant too, that after having made each advance, the shock and change which would have come from abandoning it would have been far greater and more serious than what had come from moving ahead, and that in reality there is no such thing as back-tracking. Illustrative of the progressively higher level from which we contemplate disasters that do not come is the more or less quoted doggerel:

My Granddad notes the world's worn cogs
And says we're going to the dogs,
His Granddad in his house of logs
Thought that we're going to the dogs,
His Dad, among the Flemish bogs
Swore that we're going to the dogs,
The cave man, in his queer skin togs
Knew that we're going to the dogs,
Yet this is what I'd like to state
Those dogs have had an awful wait.

Coincident with the final occupancy of virtually every part of the country by railway lines, travel by highway began to show a phenomenal revival. The internal combustion engine and well-nigh perfect roads have combined to bring about

an era of development which has dominated the last two decades as the railways had dominated the previous century. No need to dwell upon this phase for it has been witnessed by all of us. It seems sometimes as if successive improvements have brought highway travel to the point of perfection, but each year we are surprised by the newer models of automobiles which come on the market to tempt us with their beauty and comforts and, shall I add, their speed; unquestionably the satisfaction individuals feel in having their own vehicles on the highways, will continue to expand that form of transportation as rapidly as people can afford it.

Now an entirely new branch of the plant has appeared, and although it may seem to be a slender shoot, its growth may become more sturdy than we think. I refer, of course, to aviation, which is a twentieth century product and has become commercially important only since the world war. As yet traffic by air is of minor volume compared with that by other means, but for certain mail and express and for those who wish the maximum of speed, airways offer a service which is truly marvelous—the latest record, but probably not for long, is across the continent in eleven hours.

A special carrier—the pipe line—has been brought into prominence by petroleum products, which have come to occupy a high position in the list of commodities of commerce. It predominates in quantity handling of those products and of natural gas.

The internal waterways always have figured in the commerce of the country and in certain localities afford the cheapest transportation of all; those are where there is water of sufficient depth for navigation, and where there are goods to be moved which can use that type of service. The most favorable of these situations is the Great Lakes; next are the Ohio and lower Mississippi River systems. How

far improvements on upper reaches of rivers, which are not otherwise navigable, are to be carried should depend upon the advantageous use that would be made of them, that is, upon the public necessity and convenience, and whether the projects will be self-supporting.

So that now we have highways, railways, pipe lines, waterways, and airways—a wholly different transportation plant from that of any previous time or period. Also, the total amount of travel is greater than ever before, and increasing, and, obviously, saddles the country with a huge burden of expense.

II

Never before was there such abundance in every productive line. I have used transportation merely as an illustration. Other industries have made similar and equally notable advancement.

I have wondered whether it was possible for Macaulay, great thinker and student of human affairs that he was, to visualize the difficulties of controlling the great machines which science was creating—whether with the limited experience up to then, anyone could have had in mind the problems which would arise out of the incredible technological improvements which we have witnessed. At any rate, they have become the pressing problems of our time—how to continue the “tendency toward perfection” in experimental science, and at the same time to control and direct the distribution of the benefits which are made available.

It may be said that we cannot, as a nation, afford the enormous transportation bill which we are paying, amounting as it does probably to fourteen billions of dollars a year. But the answer to that is that people will continue to afford

what they want the most. It should be remembered that our transportation expense goes chiefly to labor, and also whether for labor or materials, that the money is spent in our own country among our own people. These various agencies of transport, extending as they do to all sections of the country, play a great part in collecting and distributing money, relatively little being retained by them. Probably five billions of the fourteen spent annually for transportation are for operating private automobiles for pleasure. The total of railway charges, freight and passenger, last year amounted to about three billions of dollars, or only about fifty per cent more than we paid for our tobacco.

We have, then, many different agencies of transportation, and, moreover, they are all, both in theory and practice, constantly changing, so that it is a complicated as well as vital problem that faces you, young men and women of the graduating class, whose generation will be the next to deal with it. And your concern will be how best to organize and to manage these various instrumentalities and their relations with one another and with the public.

If we may indulge the fancy of present conditions, locations of cities, factories and producing areas, as they now are, but without any railways, highways, pipe lines, or improved waterways, it would be a comparatively simple task to lay out a complete system of transportation. It would be easy to plan for the maximum of efficiency and economy, and, naturally, we could make something far more perfect than will be possible through the further evolution of these facilities as they actually exist. Our ideal creation would consist of the most modern, heavy duty railways, built on the shortest and most economical routes between important centers, and a minimum number of such lines consistent with the requirements. Similarly, the main highway arteries

would follow the most advantageous locations through the country. Secondary lines of railways and highways would supplement the main routes so as to provide the greatest convenience and minimum cost of moving persons and goods. The result would be a lesser total mileage of railways and highways than exists or is necessary under the present arrangement.

This ideal system of land communication would be tied in with waterways and airways and pipe lines at points where economy of money or time would render these types of carriers sufficiently desirable to justify establishing them.

Important changes in the corporate and economic structure of our transportation system would also appear. During the period when the building of highways, canals, and railways was relatively unrestrained, patronage favored that form of travel or transport which was the most advantageous then available. The displacement of canals and highways by railways as primary carriers of people and commerce, then the merging of many small roads, each of which formed a part of the route between important centers, took place as natural business sequences. That the merging of railway lines was in the main extremely beneficial is evidenced by the accounts of early railroad journeys between such important places as New York and Boston, Albany, Washington, or Philadelphia. In all of these instances where the trips were relatively short it was formerly necessary to pass over several different lines, and to change cars more than once. Today these are made as a matter of course in the same car and in a few hours. Another proof of the benefits of consolidation is that such large railway systems as the Pennsylvania, New York Central, Burlington, and Southern Pacific, for example, each consists of two hundred or more merged corporations. Not for an instant

would anyone suggest that it would be in the public interest to break these railways up into their component parts.

But the time came when it was felt that the merging of railways was going too far and too fast and that the monopolies which would be created would be contrary to the public interest. This was about the turn of the century and having in mind some of the conditions prevailing then, particularly the absence of highway transportation as a competitor, and the incompleteness of railway regulation compared with the present, it is only fair to say that the public attitude of that time can be readily understood.

It seems equally true, however, that in the light of later developments, the time now has come when a resumption of the policy of merging railways may be highly desirable. The presence of so many other forms of transportation must be considered and also the adverse effect of too many railways competing against each other. The benefits which are sought will come rather from a lesser number of strong competitors, than from a greater number of weaker roads—often further handicapped by the very burdens of excessive competition.

There is an acknowledged crisis in the affairs of our railways. It is not because of their failure to give good service—quite the contrary, railway service never before was so fast or dependable as it has been in the last year or two and is at present. The standard of safety, comfort, and convenience of travel is unsurpassed. The crisis is financial and economic in character. Nearly seventy thousand miles of railroad are being operated by receivers or trustees in bankruptcy or have defaulted payment of bond interest when due. This is between one-fourth and one-third of the total mileage of the country. During the last three months a much larger percentage of the railway mileage was operated

at a loss so serious that, if continued, it will increase vastly the amount which will have to go through reorganization. Broadly speaking, the cause is simple—the volume of traffic is too small. And if this continues, substantially more than half of our railway mileage will be facing financial difficulty. But I do not think it inevitable or necessary that it should continue. Recovery will come unless it is retarded by artificial restrictions of production, unless private enterprise is stifled by government competition and handicapped by unwise social experimentation. With recovery traffic will increase, for volume of traffic, more sensitively than any instrument we have, records general business conditions.

But under any circumstances railways should be permitted to effect all the economies possible through consolidation and in all other ways consistent with the public interest, and changes should be made in the law which would affirmatively encourage absorption of small lines and unification of others where economies in operation and improvement in service would result. Also, there should be such sympathetic interpretation of the law and understanding on the part of the public as would permit the railways to abandon superfluous trackage.

One of the important provisions of the present law is that new lines of railway shall not be constructed except upon findings by the Interstate Commerce Commission. It must be established at public hearings that such construction is justified by the prospective return on investment, and by public convenience and necessity. Surely the same ruling should be applied to all public undertakings which would create competition with private enterprise. It is well known that many such public undertakings do not comply with the test which is wisely required of railways.

Our railway systems were built in the days when horses and wagons traveling on dirt roads brought farm produce to the stations, and the distances such vehicles could operate were relatively short. Now automobiles and trucks on paved highways have taken their place and as a consequence railway lines do not need to be so close to each other. It has been variously estimated that on this account from twenty to thirty thousand miles of track may be removed. The rule should be the same as that applied when new lines are built. A track that is no longer needed should not be permitted to become a burden upon other parts of the railway system and upon other traffic. Greater freedom to apply ordinary business judgment and methods in railroad management pretty well sums up what would be most helpful. Rates and service must be regulated to insure against discrimination, and that was the reason for establishing the Interstate Commerce Commission in 1887. From that beginning regulation has gradually been extended to almost every phase of management, and more is proposed—for example, fixing six hours as the basis of pay for a day's work, the arbitrary limiting of size of trains, and fixing the number of men on each train regardless of necessity. Since other forms of transportation are free from these restrictions the handicap placed upon railroads is severe. Also, since other forms of transportation handle a substantial part of the freight of the country, it is now important that rates and service of all commercial carriers be regulated in order to protect shippers against discrimination. This doctrine was clearly stated by Chairman Jones of the Reconstruction Finance Corporation in a recent address when he said that all forms of commercial traffic should be brought under the same regulation, and that "When it is demonstrated that a railroad track cannot be operated to pay its way, motor

service by the highway should take its place, and local communities should not object."

I have been discussing a concrete example of what I mean by controlling and directing in the public interest the great instrumentalities which our generation has, beyond those of any former people or time. If there is not more understanding, more intelligent cooperation on the part of the public and the government with the railways, it is possible that the only alternative will be government ownership. I think that the public as a whole rightly does not want government ownership. And if it should come it would be rather through excessive regulation and unwise legislation than by deliberate intention.

I shall not discuss today the several reasons why I believe government ownership would not be advantageous; why I believe that it would greatly increase the cost of transportation and incalculably lower the standard of service. It seems sufficient to say that if legislative and regulatory authorities cannot permit to be done the things which will enable private initiative to carry on successfully, it is obvious that if in direct charge of railroads, similar authorities would not be able to control expenditures. To an even less extent could a government railway plant be shrunk to fit the requirements of a shrinking business, or altered to keep up with a constantly changing one. For the history of the railroad is a story of continuous change. One of the most fundamental of these is taking place today. Our cars are too heavy. Metallurgists have given us new alloys which reduce the weight and increase the strength of materials substantially, so that a lighter car will carry a heavier load. The efficiency of the new cars renders it advisable to build them, rather than make heavy repairs on many old ones. There are about 2,400,000 railroad cars in the

United States. If, owing to faster movement, 2,000,000 should suffice for the traffic of the country, and if these had an average life of twenty years, 100,000 new ones would be needed every year for an indefinite period. At \$2,500 each that means \$250,000,000 a year for cars alone. New types of trucks will be placed under 600,000 cars in the next few years, and there still is much to be desired in car truck construction. Improvements in steam locomotives have kept abreast of other scientific advances, and a moderate increase in traffic would justify purchasing probably 3,000 modern locomotives to avoid using some that are more or less obsolete. This would represent a \$300,000,000 expenditure. The principal passenger trains are now air-conditioned, some forty million dollars having been spent for that improvement, and it will be a continuing project. Already we have light-weight, high-speed passenger trains which have been made possible only within the past two years by the new alloys, new methods of fabrication, and new type Diesel power plants. These trains weigh about one-third as much, per passenger carried, as conventional trains and cost about one-half as much to operate. In planning cars and other structures, we may now revise our ideas of the relationship between weight and bulk on the one hand and strength on the other. As late as 1933 new sections of rails and joints were adopted which by better distribution of metal give greater strength and longer life. We shall before long have still better track material and design. Another field for betterment is in shops, where new tools and machinery can be used to advantage.

The opportunities for employment of men, material, and money in railway and allied industries are very many, and the effect of such employment would be the most wholesome thing imaginable. The moment that business generally

improves and railway traffic increases, the railways will spend hundreds of millions of dollars for motive power, equipment, and track, which it is not necessary to spend while traffic is at its present low level.

Speaking now of another phase of our general transportation problem, and one which needs better control: railroads have an enviable record of safety, but that cannot be said of highway operation, where the daily slaughter is lamentable. To attain greater security when traveling by automobile is in itself a major challenge. The very independence and freedom of individual cars and drivers make discipline difficult on the highways, but surely the present condition cannot continue. During 1933 the people reported killed by automobiles numbered 30,500 and about 1,000,000 were injured; 1,511 of these were killed and 3,697 were injured at grade crossings of highways and railways. More than a third of such accidents were caused by motorists driving into the sides of trains. Complete data are not yet available but we know that there were many more automobile accidents in 1934 than in 1933. The elimination of grade crossings, as a general project, is a splendid thing, especially just now when it is desirable to provide work, and the assignment to this program of \$200,000,000 of the \$4,000,000,000 Emergency Relief appropriation recently made, is gratifying.

Although in surveying our transportation we may look toward changes and improvements, the outstanding impression we receive is one of extraordinary and uninterrupted progress. From the first fragile, high-wheeled wagonette on rails drawn by a tiny engine at eight miles an hour to our great transcontinental trains propelled by giant steam or electric locomotives, or our new streamlined Diesel flyers that make a hundred miles an hour with infinitely greater

safety and comfort than was formerly achieved at fifteen or twenty, the forward movement has never flagged; and on the highways, as in the air, the change in recent years has come even more rapidly.

The constant progress of physical knowledge, the tendency of experimental science toward perfection, have created not only the transportation systems of the world, but also all the hundreds of other industries that make up our material progress.

III

But in the paragraph we chose for our text a second element is mentioned which "takes our civilisation rapidly forward." And it is that "constant effort of every man to better himself," to ameliorate his lot. The private enterprise, in other words, of every individual. And we must remember that in the broad economic sense, it is private enterprise that has created and carried on all, without exception, of these great industries that lighten man's burden of labor. Our own system of national transportation is almost wholly privately owned and operated, the exceptions being the highways and waterways. These are provided by the public, but we may add that they are used by privately owned carriers.

Now I do not believe that anything has happened to alter the nature of man, or to invalidate the assumption that one of the great motive powers of progress is his desire to improve his condition, and that the logical expression of this desire is what we call private enterprise. During the last century especially, we have had to adjust ourselves to more rapidly changing conditions than have ever before been known, and it is axiomatic that private enterprise is more flexible, lends itself to more rapid and far reaching and con-

tinued change, than a system which must have, for every step it takes, the sanction of an entire people.

Private enterprise, then, has been our way of progress, and I believe that it has been a good one. More particularly convinced was I of this, after visiting a country where exactly the opposite way is being tried. Five years ago I was invited by the Railway Administration of Soviet Russia to survey and make reports upon the rationalization of their transportation system and the advisability of adopting American standards, methods, and practices of railway operation. I traveled extensively throughout the length and breadth of that country in 1930. I found there unbelievable waste, confusion, human suffering. I found the only way in which the theoretic system could be made to work at all was, more or less, to abandon it, using in place of communism, a form of state capitalism, but capitalism none the less.

It was decreed that a backward people, devoted to a simple form of agriculture, must suddenly and in frenzied haste be industrialized and mechanized even as to agriculture itself. The youth of the land by the million were being moved literally from peasant farms to construction camps. They were being released from agriculture through the use of tools and machinery, and were taking up a new and strange life under direction of the central authority. The individual was wholly submerged—a mere cog in the machine—his destiny being subservient to that of the State according to the will of the absolute rulers. Instead of participation by the people in the government there is an autocracy, and instead of the liberty of private ownership of anything, there is complete possession of all property and business by the government. Granting that the plan is being carried out by those in charge with the best of intentions, an amazing thing is their imposition upon the people of an arbi-

trary fixed program regardless of hardship and suffering. Two outstanding fallacies seem to plague them; the first is the belief that by seizing the physical property of the country and eliminating all profit, everyone could live in plenty. The actual experience is that factories, farms, mines, and railways, when operated by incompetent forces or when handicapped by bureaucratic methods, produce so little that even though it may all be divided equally (which it is not), there is nothing to divide beyond the barest necessities, and not always that much. In Russia, as in every other country, the large accumulations of wealth are in buildings, factories, railroads, and the like, and the distribution of such wealth to individuals destroys it because it ceases to have value when taken apart, or when through lack of efficient management and discipline it fails to function. The one type of wealth which might have been distributed was land, and the peasants' support of the revolution was in the expectation that they would have their own little farms. The disillusionment of the peasant class upon learning that all land, as well as all other property, would be owned by the Government, has been at the root of the most serious trouble in Soviet Russia. It was the cause of the passive resistance of the peasants, that is, their refusal to produce, since they had no control over what they produced, and this silent revolt has brought punishment as severe as any ever recorded in history—the so-called liquidation of the Kulaks, and the wholesale famine of 1932–1933. The second theory is the idea that all spiritual welfare may be done away with and a superior culture built up, based on devotion to social reform and physical betterment. One has an impression that there is prevalent a fear of unseen things, and a general distrust of everything and of one another. People there have a haunted look and manner. Governmental propaganda of

every conceivable kind, including public radio stations, is everywhere evident. How any informed American could conscientiously propose to adopt the theories and policies of Soviet Russia in his own country is beyond my comprehension.

It has been said that we as a people are the victims of our own efficiency. But this assuredly is only a seeming condition. Events have moved so fast at times they outstrip us and we are unable, temporarily, to direct them in such a way as to secure the fullest benefits from the agencies of production. Also, it is probable that we have not discovered or do not recognize the fundamental laws which control our social activities to the same extent that we understand the laws of natural science. There must be laws which govern the forces of our social and economic life, which are as definite in their application as is, for example, the law of gravitation. The complete disagreement among scholars and students of political economy and the social sciences as to the remedies of the worldwide distress of recent years shows that we fail as yet to understand the cause. It is well to remember, too, that periods of business recession always are accompanied by prophets of despair, fomenters of discord and class hatred, and others who would receive but scant attention in normal times. Their appeal is to the emotions rather than to the ideas or reasoning of the people. They do injury to those whom they pretend to help when they precipitate trouble between those who should be most steadfast friends, namely, the worker and employer.

Here at once is a challenge and an opportunity for the young men and women of today who are entering upon the most active period of life. We are equipped, as never before in history, with tools, machinery, technical methods. These have lifted the actual physical burdens from the shoulders of

Progress and the Individual 193

men and women and have placed in their hands many times more power than any previous generation has ever possessed. The problem of the youth and of all of us is to resolve this into power for good; to continue finding new avenues for human endeavor which will take the place of that released from drudgery, and as greater time is left for leisure, to direct the mind and hands toward proper recreational and cultural enjoyment.

Progress should not be questioned because it has been uneven or because we have not always been able to control our improvements and direct them to the greatest good. What we need is more understanding, more self control, self reliance, and capacity to adjust ourselves to the very changes which result from Progress.

My own belief is that we need to give more heed to the spiritual side of our lives, and to search there for guidance in applying the known laws and rules which affect our business and personal affairs. We need less of selfishness—a practical application of the meaning of the greatest of all teachers when He said "Thou shalt love thy fellowman as thou lovest thyself." I do not know any better counsel in applying that teaching than that of Paul the Apostle to his beloved Philippians:

Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any virtue, and if there be any praise, think on these things.

RALPH BUDD.



