



RED SMOKE

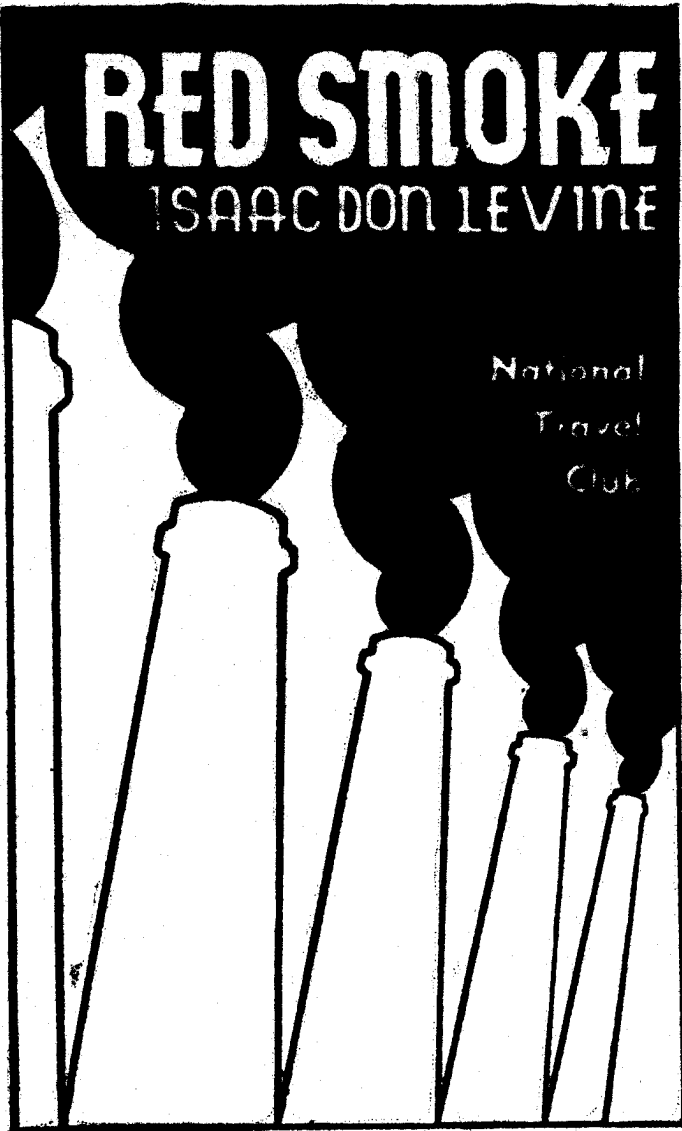
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**BY ISAAC DON LEVINE**

**AUTHOR OF "STALIN"**

# RED SMOKE

ISAAC DON LEVINE

National  
Travel  
Club



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# **RED SMOKE**



**BY ISAAC DON LEVINE**

**T**HEY were discussing the Five-Year Plan. Among those present were intellectuals primarily interested in the idea of a planned society as a remedy for the current economic crisis. Others were more interested in the Russian experiment from the standpoint of communism or socialism.

The group was listening to the author of a recently published book on the Soviet economic system who had spent several months in Russia last year. The speaker was conveying his views with emphasis.

“Where did you get your data?” I inquired.

“From direct observation, by interviewing hundreds of persons while in Russia, officials as well as workingmen.”

“But after fourteen years of contradictory impressions from the scene of the Russian Revolution, don't you think that the time has come to go to scientific sources and present the Soviet's own au-

thetic evidence for an appraisal of events in Russia?"

"You do not doubt the honesty of my statements?"

"Not at all, but neither do I challenge those observers who have arrived at the very opposite conclusions. I simply challenge the method of subjecting events in Russia to a test of veracity. Mr. X reports from a certain city on the Volga his own impressions and opinions. Mr. Y who has visited the same place has a diametrically opposed report to make. Both are sincere. One has to make the choice of believing either Mr. X or Mr. Y. That illustrates the value of impressions gathered from field observation."

"I spent several months investigating the Five-Year Plan and I ought to know something about it."

"What Five-Year Plan are you talking about?"

"Why, the Five-Year Plan in operation in the Soviet Union today."

"Have you read the *Five-Year Plan*?"

There followed an embarrassing pause and a bewildered expression.

"What Five-Year Plan?" stammered the parlor-lecturer.

"*THE Five-Year Plan*, the original and only



official record of the plan issued by the Soviet Government."

It appeared that the speaker and all those present had never heard of it. That the Five-Year Plan possessed physical dimensions similar to those of a small encyclopedia was news.

It was news that the *Five-Year Plan* is not a mere slogan. And it took some effort to explain that the famous plan, in its original and basic and only authentic form, is quite different from the various political interpretations of it which enjoy such popularity throughout the world.

"I am referring to the exhaustive compilation of the leading Russian economists, geologists and technologists, published in four volumes by the Soviet Government, under the auspices of the State Planning Commission. This record embodies the research and study of several hundred scientists. This was the only Five-Year Plan ever adopted by the Soviet Government."

On a later occasion, a Russian journalist who has been in this country for several years asked me to read a ten-thousand word article dealing with the Five-Year Plan which he had prepared for publication in an American magazine.

"Where did you get your facts?"

"I keep up with the current literature. I have

read most of the books and articles on the subject, both in English and in Russian."

"Did you consult the *Five-Year Plan*?"

"No." The gentleman knew of it, but had never had the occasion to read it.

"But how can you write on the effects of the Five-Year Plan without having read it, without being acquainted with the premises of the subject?"

The red smoke emanating from the various menaces and challenges raised so suddenly in connection with the economic pyrotechnics of the Soviet dictatorship has obscured many visions, and makes it necessary to emphasize that, in addition to the almost metaphysical Five-Year Plan which has become at best a political battle-cry, there is also a physical Five-Year Plan, predicated on a set of economic laws, affording the only legitimate standard by which one can measure the performance and the possibilities of the experiment in Russia.

This *Five-Year Plan* should not be confused with the numerous expositions and interpretations and summaries of it published abroad. A careful scrutiny of these works reveals that virtually all of them have failed to convey the fundamental propositions postulated in the original *Five-Year Plan*.

These propositions are derived from the economic geography and geology of Russia. The economic history and destiny of Russia, in the past

as well as the future, are determined by a set of inexorable physical limitations inherent in the nature of the country, such as her northern location, the dimensions of her territory, the character of her soils, the pattern of her rivers, her lack of open ports, her isolation from the maritime highways of the world, and the distribution of her mineral deposits and her centers of population.

The natural resources of Russia, in conjunction with unalterable geographic factors, are such as to condemn her to an existence of relative poverty in the role of a second-rate agricultural state. The belief that Russia is a country of almost unlimited natural resources has gained wide currency since the Revolution. That the Soviet Union is endowed with vast potential wealth, that it rivals America in undeveloped riches, has been asserted again and again by writers who professed to regard the future of Russia either as a promise or as a menace. The misconception has been perpetuated by the political mentors of the Bolshevist movement. It gave substance to the theory of Russia's passing in brief order, under a planned stewardship, from a state of backward agriculture to one of advanced technical magnificence.

Fundamentally, the Five-Year Plan is an effort to convert natural resources into mechanical power, to transmute fuel deposits and reserves into me-

chanical horse-power. That is the cornerstone of electrification, industrialization, mechanization and similar slogans raised by Lenin and his disciples.

With insufficient natural resources, with an economic geography that is unfavorable, the Five-Year Plan would be an empty gesture. The mineral wealth of the globe is not distributed evenly or in proportion to population. There are large areas with vast numbers of inhabitants in the world which possess fewer industrial potentialities than any one of a dozen states of this Union.

The phenomenal mineral wealth and natural transportation facilities which have conspired to make America the industrial giant of mankind cannot be duplicated or even approximated by any other country. Russia, as far as natural resources are concerned, ranks among the lowest countries in the world.

The professed aim of the Kremlin mentors of the Five-Year Plan is to transform primitive peasant Russia into an advanced industrial country that would overtake and surpass the leading capitalist nations, notably the United States.

But does Russia possess the possibilities for realizing this grandiose aim of the Five-Year Plan?

Speaking before the first national conference of industrial directors held in Moscow in February,

1931, Joseph Stalin, the political boss of the Soviet Union, answered the question emphatically:

"Yes, we do have these possibilities. What are they, what is required in order to realize them?

"First of all, we must have sufficient *natural resources* (italicized by Stalin), such as iron ore, coal, oil, grain, cotton. Have we got these? Yes. We have more of them than any other country. Take for example the territory of the Urals which presents a combination of resources that cannot be found in any other land. Iron ore, coal, copper, oil, grain, what have the Urals not got! We have everything, with the exception, perhaps, of rubber. But in a year or two we shall also have rubber. As far as this prerequisite is concerned, the requisite of natural resources, we are fully provided for. We have even more than we need."

Thus spoke the political leader of the Five-Year Plan, the generalissimo of the drives and campaigns which have made the Soviet State loom as the industrial colossus of the world of tomorrow.

But the real *Five-Year Plan*<sup>1</sup> is not a political

<sup>1</sup> The *Five-Year Plan*, when italicized, refers to the official record under that title, third revised printing, Moscow, 1930. All the vital quotations in the following chapters dealing with the natural resources of the Soviet Union are derived from that source. As this Russian edition is available but to a few in this country and as the author did not wish to encumber the text with footnotes, it seemed advisable to give the following references for the special student of the subject: Volume I, pp. 13, 138; Volume II, Part I,

battle-cry. It is primarily a document incorporating the results of a most comprehensive survey of the natural resources of the country, and deals with the elements contained in the prerequisite given by Stalin for the industrialization of the Soviet Union. The evidence which the *Five-Year Plan* presents tends to refute completely and to destroy Stalin's rhetorical, "We have everything!"

Russia was among the first countries in the world to institute a national surveying body. This cornerstone of the Five-Year Plan was laid several years before the Revolution. It is not by accident that the Five-Year Plan is being conducted like a military operation. Its origin was the World War. The date of its birth was 1915. The circumstances were not unlike those which prevailed at the formal launching of the Five-Year Plan.

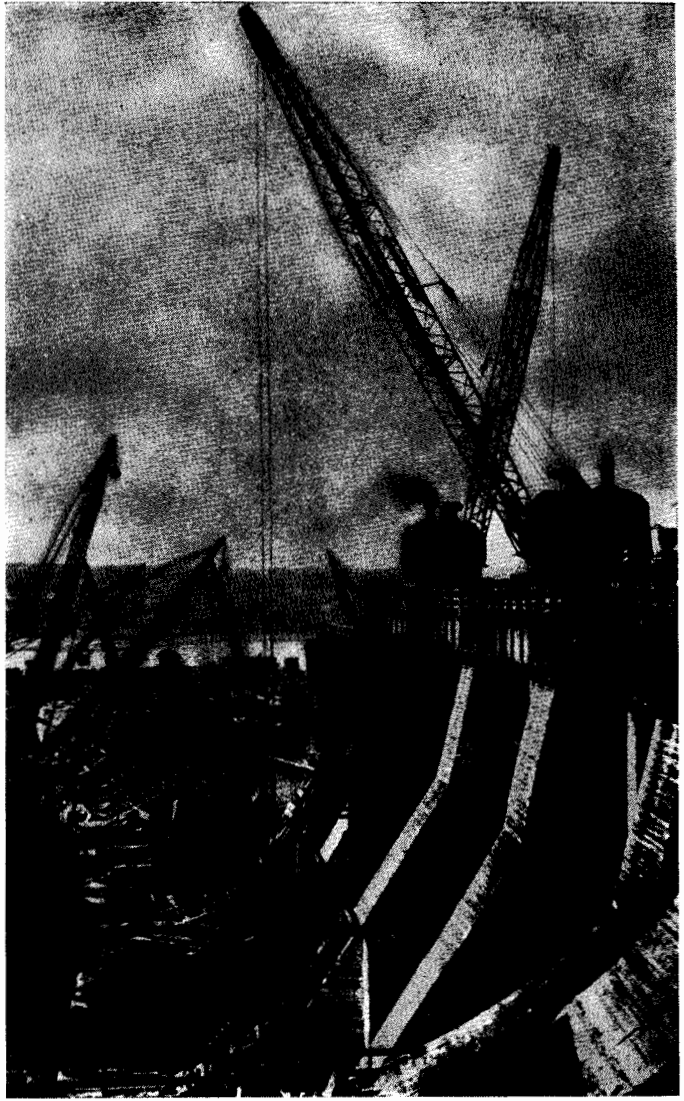
Six months after the outbreak of the war, the Imperial Academy of Sciences formed a Commission for the Study of the Natural Resources of Russia, for the purpose of thoroughly surveying the country and discovering mineral and other riches which Russia imported from abroad and which she needed badly for the conduct of modern warfare.

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pp. 7-11, 17, 19, 44, 50, 99, 115-119, 129, 136, 141, 155, 475; Volume III, pp. 227, 229. For further information on the subject, consult the publications of the Commission for the Study of the Natural Resources issued by the Academy of Sciences, Leningrad.

Timber is floated down the Volga in great rafts. In spite of the inexhaustible timber reserves in Russia's northern provinces, there is actually a shortage of firewood in the populated centers, particularly in Siberia. Russia's massive timber zones are located in almost uninhabitable areas where roads are a novelty. Moreover, all of the Siberian rivers flow north, directly away from the populated areas, and thus are useless for the exploitation of the northern forests.





Dnieprostroy, the gigantic dam on the Dnieper River in the Ukraine, was built for the generation of hydro-electric power. As Russia is a flat country and totally lacking in mountain streams, its water power resources are extremely meager. According to the *Five-Year Plan*, the potential water power of European Russia constitutes but 0.4% of the world total. The wealth of the country's liquid energy is located in the turbulent Siberian rivers, but all flow into the Arctic Ocean and because of climatic conditions can only occasionally be exploited. Dnieprostroy, it is interesting to note, has a far greater capacity than is required by the existing industries within its reach.



This Commission was the first governmental body of its kind in the world. After the revolution, the Academy was renamed the Soviet Academy of Sciences, but its main staff of experts remained in office. The Commission for the Study of the Natural Resources established connections with Lenin, and through him, with the Supreme Economic Council. Subsequently it became closely identified with the State Planning Commission. Its findings are contained in scores of tomes published by the Soviet Government and form the backbone of the official record, the *Five-Year Plan*.

The natural wealth of a country, as far as its industrial development is concerned, consists first of all of its power resources. This the authors of the *Five-Year Plan* recognized from the outset.

"The industrialization of our national economy can be developed successfully only on a broad power base," we read in the *Five-Year Plan*, which proceeds to say that the best index to the socialist industrialization of the country is provided by the installation of mechanical power.

What is Russia's chief source of power? We are informed by the Soviet economists: "In the condition of the Soviet Union, the basis of the power resources of the country is fuel . . . the role of the other power resources—water and wind—is quite small."

The common notion that Russia's fuel resources are well-nigh inexhaustible is not borne out by the scientific framers of the *Five-Year Plan*, who announce:

"The fundamental task of the Plan is to insure the development of our national economy by providing it with a firm fuel base which would render the supply of fuel completely stable, and, above all, immune from shortage or crises.

"The idea underlying the Plan is that the supply of fuel must be derived exclusively from the exploitation of *our own resources* (italicized in the original), without the importation of foreign coal. . . . The well-known fact can be emphasized once more that the majority of our industrial centers do not have sufficient bases of their own and are considerably removed from the fundamental and high-quality regions, the Kuznetsk (Siberia) and Donetz (Ukraine) coal fields.

"With regard to fuel resources, the condition of the Soviet Union differs substantially and unfavorably for us from that of the United States, England and Germany. . . .

"The industries cultivated in the Leningrad district were definitely based upon the import of foreign coal."

After reviewing the various fuel resources of the country with respect to their potential wealth and

location, the *Five-Year Plan* declares in unequivocal terms that the basic source of power for the erection of an advanced industrial Russia is coal. "For nearly all of European Russia," we are told, "the Donetz Basin will be of exceptional importance, even as the Kusnetsk is for Siberia and the Urals. The remaining coal deposits are of local value and of low grade.

"In these circumstances," reiterates the *Five-Year Plan*, "the central place in the power balance of the country is held by the Donetz Basin which is the fuel base for the industrial South and a source of long-distance fuel for the European part of the Soviet Union."

The main key to the industrialization of Russia, to its boasted rivalry with America, is, therefore, coal. What then are the coal resources of Russia, as compared with the rest of the world? An answer to this question is not yet a full statement of the country's power resources, for the location has a direct bearing upon the exploitation of coal.

Since the Donetz Basin is virtually the main source of coal for European Russia, it is well to bear in mind that the latter covers an area a little over half of that of the United States, with a population approximately equal to that of the entire United States. It is here that the overwhelming share of Russia's industries is located.

The Donetz Basin possesses three quarters of one percent of the world's total coal supply. The United States possesses coal reserves amounting to forty-eight and six-tenths percent of the world's total deposits. While the United States has over fifty times the coal resources of European Russia, it has only seven times as much coal as all of the Soviet Union, which occupies one-seventh of the surface of the globe. Seven-eighths of Russia's coal reserves are to be found in remote Siberia, with a total population of twelve million, located in an area which is almost two and a half times the size of the United States.

According to the most sanguine Soviet estimates, the total coal deposits of the Soviet Union, including actual, probable and possible reserves, amount to 475 billion metric tons of which 56 billion are to be found in the Donetz Basin. The total combined coal resources of all of Russia are less than the coal deposits of the single state of Wyoming and are but a little in excess of the coal wealth of the state of Colorado. And there are but three important coal fields on the territory of the Soviet Union, an area eighty-two times the size of Wyoming.

The many thousands of miles which separate the two inaccessible coal basins of Asiatic Russia from the existing and planned industrial centers,

render them virtually non-exploitable, especially when it is borne in mind that Leningrad found it more profitable to import coal from Great Britain across the sea rather than haul it from the Donetz Basin in the Ukraine.

But what about the Urals? Did not Stalin point to them as a treasury of boundless wealth? "What have the Urals not got?" The Urals lie on the border of European and Asiatic Russia, and constitute the oldest industrial area in the whole country. It was there that Peter the Great built the first iron works. It is, on the whole, one of the best studied and explored and worked parts of the land. The authors of the *Five-Year Plan*, mindful of the iron ore deposits in the Urals, are quite precise with respect to their possession of that most precious and most fundamental resource of power—fuel.

"The fuel energy of the Urals is disproportionate to its productive resources, hindering the large-scale development of the area," we read in the master work of the *Five-Year Plan*. "The Urals must also be added to those regions which are poorly provided with power resources," we find in another chapter. And still further on we discover that "particularly essential for the Urals is the supply of wood . . . in view of the relatively low provision of the Urals with mineral fuel of their own." In another volume of the *Five-Year Plan*

we come across the following: "The existing shortage of fuel in the Urals will be made up by the import of coal from the Kuznetsk basin. . . . With the construction of the Magnitogorsk metallurgical plant (one of the gigantic enterprises being built in Russia) and with the development of the other branches of industry in the Urals, the latter will be facing a growing shortage of coal."

It would, therefore, appear that the Urals are almost barren of coal, but that is not the exact case. The Urals do have some local coal deposits, but they are of low quality, they are inadequate, and they are so distributed as to make their commercial exploitation highly questionable.

America has achieved her premier industrial position in the world because of her boundless natural resources, first among them being coal. We have mined since the beginning of the present century thirteen billion tons of coal, an insignificant fraction of the country's coal reserves.

Russia lacks this primary element for her necessary rise from a state of aboriginal agriculture to the first base of the modern industrial level. She has coal deposits, but they are insufficient, they are too far apart, they are removed by great distances from the old industrial centers which had developed on firewood and similar fuels which are now either exhausted or antiquated.

With respect to coal, Russia is not only immensely inferior to the United States and to Canada, but, on a per capita basis, even to the majority of the Western European countries.

It is true, the total mineral resources of the globe have not yet been definitely ascertained, although tremendous progress has been made in that direction in recent years. The best estimates of the world's resources, such as made by the International Power Conference, represent but the summary of our knowledge to date. The possibility of further discoveries of mineral wealth in Russia is strong indeed. Yet it is impossible to plan a concrete program of development except on a basis of actual, known resources. Geologists divide their estimates of mineral deposits into three categories: actual or visible; probable; and possible reserves. The *Five-Year Plan*, being a definite project, is based upon actual, available resources. The *Five-Year Plan*, as executed by Stalin, is predicated not only upon probable and possible reserves but also upon unknown and unpredictable quantities. Already his economic drive is proving singularly devoid of power. Its energy is that of political rhetoric which cannot be measured in tons and which cannot be converted into kilowatts.

**R**USSIA will be forced to import coal from abroad during the operation of the next Five-Year Plan, already officially proclaimed by Moscow, if the present Stalin adventure in forced industrialization should be continued, according to the original *Five-Year Plan* framed by the leading Soviet economists.

Russia has few coal fields, and their location is a recognized handicap to her industrial development. But coal does not exhaust a country's power resources. There are other fuels, such as peat, timber, and oil. There are other sources of energy, such as water power, the wind and, theoretically, the sun.

If Russia is to outstrip the industrial giant of them all, the United States, then her potential power resources other than coal must be so huge as to make up for the disparity between her coal reserves and those of America.



But can Russia compare with America and other leading industrial nations in power resources? The *Five-Year Plan* proves that there is little prospect for Russia ever to catch up with America. The available sources of power for industrial purposes are extremely inadequate in the Soviet Union.

Russia possesses peat deposits in abundant quantities. But peat is a low grade fuel. And the scientists who laid out the Five-Year Plan are none too hopeful as to its immediate exploitation.

"Peat could play a great role in the fuel needs of the region where deposits of it are found, but in the current five-year period it is futile to count upon its attaining wide use even in these regions," declares the *Five-Year Plan*, and adds:

"And if the exploitation of peat is not feasible for the present span, all means and forces should be concentrated to expedite the solution of its availability for the next five-year period when the question of supplying Leningrad and the Central Muscovite Provinces with imported coal will attain extraordinary acuteness."

But Russia is popularly believed to have within reach another source of fuel, namely, fabulous timber reserves. The *Five-Year Plan*, however, is not so sanguine on the subject. It says:

"Following the strenuous exhaustion of all the massive timber resources in the neighborhood of

the industrial regions, firewood is now essentially one of the least secure fuel resources for industrial needs, but it is being intensively exploited as an emergency supply in the existing fuel difficulties even to the extent of violating the conservation limits. To permit such an exploitation of timber under the Five-Year Plan is, of course, impossible."

Russia's northern provinces abound in timber. But her industrial centers cannot depend upon the remote firewood as fuel. Siberia has vast timber reserves. Yet Siberia actually suffers from a shortage of firewood! Let the *Five-Year Plan* speak:

"Among the unfavorable factors in the exploitation of timber, the extremely *unequal distribution* (italicized in the original) of the forests in relation to population must be kept in mind. The most populated part of the territory is the least provided with woods. The main massive timber zones are located in the almost uninhabitable areas and, as a result, lack labor and are separated from the consumers of firewood by great distances, accentuated by extremely poor and unfavorable means of communication."

The unfavorable means of communication, in addition to the short summer and absence of roads, are due to the natural phenomenon of all the Siberian rivers flowing from the centers of population, from the south, toward the far north. It would

hardly pay to float timber upstream for thousands of miles.

"Hence," continues the *Five-Year Plan*, "such anomalous phenomena of Siberian economic reality as a demand for firewood that approaches hunger, a demand coming from the plains; the high cost of lumber and wood; the extreme exhaustion of all timber resources along highways and in settled areas; and at the same time an annual loss of vast quantities of timber in the uninhabitable regions due to waste."

The authors of the *Five-Year Plan* then review the next important fuel resource of the country, oil, of which Russia possesses enormous deposits, although these again are unfavorably located, as they are entirely concentrated in the Caucasus, the southernmost extremity of the Soviet Union. "It is sufficiently known by now that oil is not an industrial fuel, but a most valuable raw material," they declare. After pointing out that the Plan envisages the use of the refined oil products, such as gasoline and kerosene, as articles of export and as valuable necessities for motor and naval consumption, they state:

"Therefore, oil as a fuel, which rôle it played fifteen to twenty years ago in a big way, is now fundamentally changed, and must surrender its function. It certainly cannot be regarded any

longer as a basic source of the country's fuel supply." Due to the mechanized processes of extracting the most from crude oil, and the demand existing for these refined products in the world market and the prices they command, oil is far too expensive to be used as a source of power for industrial needs.

Russia has not as much oil in the ground as the United States. But if the oil reserves of the United States were to be employed as fuel to supply the power necessary to run the industries of the country, the known American oil supply would be exhausted within one year.

When oil is converted into horse-power, in terms equivalent to coal, it shrinks tremendously. The total known and supposed oil reserves of the Soviet Union, expressed in terms of coal, according to the *Five-Year Plan*, form 0.8% (eight-tenths of one per cent) of the power resources of all of Russia and 3.8% of those of European Russia.

"The general fuel situation of the old industrial centers, the Urals, the Central Muscovite Provinces, the Leningrad and Ukraine areas," says the *Five-Year Plan*, "which consume two-thirds of the entire industrial fuel of the country can be characterized as follows: the Urals and the Central Provinces developed their industries on their secure fund of timber which was cheap and sufficient at the time.

The tempestuous growth of oil production in 1885-1903 (before the coming of the automobile) stimulated industrial development along the Upper Volga, partly in the Central Provinces and partly along the rest of the Volga. (The Leningrad industries depended upon imported foreign coal.)

"It is just these fuel resources—timber, oil and imports—which in our contemporary situation are eliminated as fundamental sources of supply for these old industrial centers. Yet in the current five-year period these regions are witnessing an intensive expansion of the consumption of fuel on scales far exceeding those of pre-war days."

The ambitious capital construction undertaken by Stalin and the other political directors from the Kremlin, exceeding the limits set in the basic *Five-Year Plan*, is therefore a menace to the small reserves of fuel which Russia commands, and promises to drain them within an even shorter space of time than anticipated by the economic authors of the Plan.

Consider, all of European Russia possesses fuel resources, rendered in terms of coal, and including coal, timber, peat and oil, to the extent of a little over  $1\frac{1}{2}\%$  (one and one-half per cent) of the world's total power resources. European Russia, with four-fifths of the population of the Soviet Union, contains less than one-sixth of the total

power resources of the country, according to the *Five-Year Plan*.

But, after all, fuel is not the only source of power. There is water power, for instance. How does the Soviet land fare in this regard?

Russia is predominantly a flat and low country, and water power is one of its least assets. "The major part of our water power," states the *Five-Year Plan*, "is distributed over a wide network of plain rivers, the lesser part is concentrated in mountain streams of any considerable fall." It is pointed out that in spite of the construction of several powerful hydro-electric plants, including the much-advertised Dnieprostroy under the supervision of Hugh Cooper, the builder of Muscle Shoals, "the utilization of water power . . . in the total energy balance of the country can furnish only about 3% of the industrial power."

"Taking into consideration the relative poverty of the basic industrial regions of the Soviet Union in water resources," we are told in another section of the *Five-Year Plan*, "water power cannot exercise any substantial effect upon the fuel balance of the country as a whole. The fundamental source of power in the economy of our country is its fuel resource."

The annual capacity of the water power of European Russia, expressed in terms of coal, is eight

million tons, or 0.4% (four-tenths of one per cent) of the world total, as compared with one hundred and forty million tons, or 7% of the world total, found in the United States.

Asiatic Russia, of which Siberia occupies the overwhelming part, is comparatively rich in water power, and possesses two-thirds of that source of energy available in the country. But all the great Siberian rivers flow from the south to the north, away from the inhabited zones, and towards the Arctic Ocean into which they fall. The wealth of water power in Siberia is therefore of no practical use and, in view of climatic conditions, hardly likely ever to be exploited.

Nevertheless, there are still other sources of energy in the world, such as wind and sun. Did not man from the earliest times exploit the air currents in his windmills? However, the *Five-Year Plan* dismisses this element briefly with the statement: "The utilization of wind energy for industrial purposes has not yet passed the stage of small experimental stations."

The quest for an easy source of power has even turned the Soviet scientists to a real pursuit of the sun. The director of the Soviet helio station, in an article published in the Moscow *Izvestia* (the official organ of the government) in May, 1931, declared:

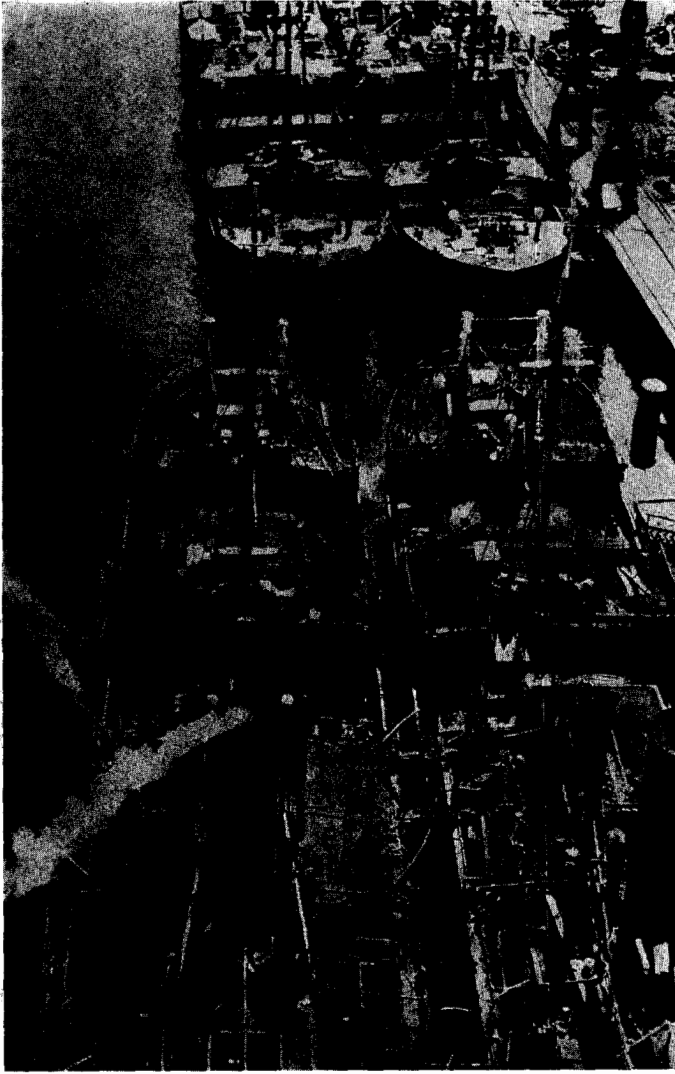
"In the condition of the fuel difficulties which

our country is experiencing and the strain upon the fuel resources in connection with the continuous enormous growth of our industries, the exploitation of any new source of power is of extraordinary interest. Helio power is a field in which it is possible in the shortest time to add to our fuel reserves such a new and unexampled and inexhaustible source as the 'basin' of sun energy. If we could utilize one-hundredth of our suitable area, the energy thus secured would exceed all the needs of the Soviet Union." The author refers to an experimental station established by a British Company in India and concludes with the challenge, "The capitalists are trying to wrest from us the leadership in this new field of technique."

Obviously this field of technique was too novel to be taken seriously by the compilers of the *Five-Year Plan*, and they omitted it altogether from their survey of the power resources of the nation. Having closely inquired into the various forms of available energy both in European and in Asiatic Russia, they found that the basic source of power for the industrialization of the country is coal. Like a red thread, this conclusion runs through the entire *Five-Year Plan*.

Lacking in water power, her dense centers of population denuded for hundreds of miles of forests, Russia under the *Five-Year Plan* as conducted





Leningrad Port is one of the few harbors of Russia, a vast country with a negligible sea coast. The entire Soviet Union does not possess a single first-class harbor. This isolation from the ocean highways has contributed largely to the lack of its economic development. In relation to its area, Russia's coast line compares unfavorably with that of all other important nations. Its merchant marine constitutes only one-half of one per cent of the world total.

At Kuznetstroy, in Siberia, is situated the spectacular iron works under construction in the great Kuznetsk Coal Basin. Since Siberia is practically barren of iron deposits, this plant depends upon ore hauled nearly 2,000 miles from the inadequate iron deposits in the Urals. Kuznetsk in turn supplies coal to the Magnitogorsk plant in the Urals. The cost of carrying one ton of coal between the two points is about \$7.60. Nowhere in the world is ore or coal hauled by rail for industrial uses over such long distances and at such high costs.



by Stalin is vitally dependent upon coal. But the geography of her coal reserves is extremely unfavorable, and European Russia, with an area of nearly two million square miles, has but one important coal field, and that in the southern zone, adjoining the Black Sea.

Even a dictatorship such as holds Russia in a vise of iron cannot create a new form of society without sufficient natural possessions. A rational economic order must unfortunately be built within the limits of irrational natural resources. When these resources are inadequate, the transportation element becomes of especial moment, particularly in a vast domain such as the Soviet Union.

**T**HE Five-Year Plan in the hands of Stalin is a political football. The *Five-Year Plan* of the Soviet economists, who recognize that civilization is communication, stands for power resources plus transportation facilities. The potential wealth of Russia cannot be properly measured except by applying to it the standard of transportation. It is on this scale that the *Five-Year Plan* weighs the country's latent mechanical power.

The State of Pennsylvania contains within its limited boundaries a greater concentration of industries than is to be found in the entire Soviet Union. What made Pennsylvania is the great fund of fuel at hand, its proximity to the numerous Atlantic harbors, its nearness to sources of metal ore and to dense centers of population providing markets for its products.

This element, were it present in Russia in proportion to its area, would inevitably make for the

success of the Five-Year Plan. Were the natural resources of Russia to be concentrated in a territory the size of Germany or France, bordering on several seas, she would be a legitimate contender for a leading position among the Western European industrial states, but never a contender for the leadership gained by America because of the latter's huge resources, natural means of communication, indented coastal lines stretching for tens of thousands of miles and punctuated by harbors of superlative quality.

The natural conditions which make for the development of a first-class transportation system may be subject to certain human influences, but basically their boundaries are fixed by extra-human laws which no Five-Year Plan can modify.

Climatic extremes, arid wastes, marshy tundras, rockless steppes, the absence of maritime frontiers and of suitable harbors, flat rivers frozen over for long periods of time, and, finally, sheer distance, are inherent handicaps to the development of a high technical level of civilization. All these handicaps are to be found in Russia.

The economic geography of the Soviet Union has no relation to Stalin's conduct of the Five-Year Plan, although the economists who framed the Plan were cognizant of that vital factor, and premised their work upon the actual geography of their

country. After surveying the scanty natural resources of Russia, they write:

“Another essential element in determining the industrial rôle of our fuel resources is their territorial location in relation to the fuel-consuming industrial centers.

“Transportation in general and that of railroad communication in particular,” declare the authors of the *Five-Year Plan*, “must play an exceptionally important part in the actual conditions of the geography of the Soviet Union. Indeed, given the extreme stretching of our country in its width, we find that all the main rivers run either from the North to the South or from the South to the North. In the latter case, most of them flow to the Arctic Ocean, which makes their exploitation for purposes of communication impossible during the greater part of the year and very difficult and hazardous in the other part.”

Even more unfavorable is the situation of Russia with regard to maritime transportation. Here is a colossal land with a negligible sea coast. There is no great country in the world so handicapped as the Soviet Union in this respect. Its Baltic border line is short and possesses not a single first-class harbor. Its Black Sea shores do have two or three good ports, but the Black Sea is an inland lake, locked twice, by the Bosphorus and then Gibraltar,

for the Black Sea is an extension of the Mediterranean and its accessibility to the ocean highways will always depend upon other powers. Five thousand miles from Moscow is its Pacific coast, which is too distant to be of economic benefit to the populated and industrial regions of European Russia.

The Soviet Union possesses twenty-five thousand miles of indented coast line in the North. Siberia has scores of wonderful harbors. But that ocean is the Arctic Ocean and the value of this maritime frontier is nil.

The *Five-Year Plan* recognizes this unusual feature of the economic geography of Russia. Upon reviewing the unfavorable condition of the navigable waters in the interior, it continues:

“Precisely similar is the situation with regard to marine transportation, which is extremely limited in relation to the area of the Soviet Union because of the insufficient indentation of its coastal lines, with the exception of the North. Thus, the extreme continentality and the peculiar geography of its waterways impose very high demands upon its land system of communication and especially upon railway transport.

“The importance of this aspect of transportation will increase when the geographical location of our basic natural riches and power resources, on the one hand, and the distribution of our centers of

population and our industrial points and consuming markets, on the other hand, are borne in mind. For example, the fundamental source of power, coal, is concentrated in three localities to the extent of 95%, the Donetz having 14.4%, the Kuznetsk 69.6% and the Irkutsk basin 11%, while the distance between our two greatest coal fields, the Kuznetsk and Donetz, is 2,500 miles. In the same situation are our known reserves of oil which are concentrated to the extent of 85% in the Caucasus. The same is true of our timber: 82% of our forested area are in Northern Asia, 12% in the Northern zones of the European part of the Union and only 6% in the balance of our territory. Yet our productive industries are located to the extent of 95.6% in the European area, including Transcaucasia, and only 4.4% in Asia.

“The lion’s share of our industries falls in the Central Muscovite Provinces, the Leningrad district and the Ukraine. Here will be found, too, 40% of the total population of the Soviet Union. The presence therefore of a whole series of wide gaps as far as the location of our productive forces is concerned, which is the basic task of transportation, is the second highly characteristic feature of the economic structure of the Union.

“Finally, the third peculiarity is the size of the country’s area in itself. Thus, if we remember that



during the coming five-year period the grain funds of Siberia and Kazakstan (Southern Siberia) will play an important role, together with the coal of the Kuznetsk fields, in the economic life of the western half of the Union, we will find the latter (the European part) facing the necessity of overcoming by transportation means a distance ranging from 1900 to 2500 miles."

Such, in outline, is the complexity of Russia's transportation potentialities in conjunction with her power resources. The European part has one major coal field, and that far removed from the great nests of industry. In the circumstances, the *Five-Year Plan* emphasizes, "the situation demands first of all, the wide exploitation of local fuels . . . such as peat deposits and the coal reserves of Muscovy, the Urals, etc. But it must be observed that in the majority of cases, these resources are low-grade fuels, and, therefore, little transportable."

The main fuel resources of the country are in the Asiatic part of the Union, mainly Siberia. Asiatic Russia, the *Five-Year Plan* states, contains nearly 84% of the total power resources of the land, distributed over an area nearly five times the size of European Russia but having a population, largely tribal, of about twenty million. In 1930, there were 162 million people in the Soviet Union.

The European and industrial part of the coun-

try therefore depends upon far-away Siberia for its supply of energy, the life-blood of the Five-Year Plan. Even the Urals, bordering upon Asia, cannot develop their iron ore deposits without resorting to remote sources of fuel. The nearest coal field of consequence to the Magnetic Mountain in the Urals is the Kuznetsk basin in Siberia. The *Five-Year Plan* envisaged the combination of the two bases into a moderately developed industrial entity.

Stalin's political dictatorship rushed with the execution of the Plan far ahead of its fixed norms, and on a scale involving several times the outlay of the original funds scheduled for capital construction. As Peter the Great ordered a city to be built on the swampy banks of the Neva, so Stalin commanded a Steel City to be built at the Magnetic Mountain—Magnitogorsk. This city was to be larger than Gary, Ind., it was to be the greatest steel plant in the world.

The fuel problem and the transportation costs inherent in the consummation of that huge enterprise were not studied until several months before the opening of the works! It was only in June, 1931, that the Moscow *Izvestia* and *Pravda*, the leading organs of the Bolshevik régime, seriously took the matter up, and wrote:

“The creation of the iron and steel industry that will work on the iron ore of the Ural Mountains

and the coal of the Kuznetsk basin brings forth the problem of hauling iron ore and coal over extremely long distances. There are only three cases in the entire world where iron ore and coal are carried over distances as great as that separating the Kuznetsk basin from the Ural Mountains. These cases are: the hauling of iron ore and coal over the Great Lakes in America, the carrying of Spanish iron ore to the ports of the Netherlands and England, and the transport of Swedish iron ore from the Gulf of Bothnia to the ports of Eastern Germany. In all of these cases the iron ore and coal are transported by water and nowhere in the world are these commodities carried by railroad over such long distances. Therefore, there is no doubt that other things being equal, the transportation cost will make the price of pig-iron produced in the Urals and the Kuznetsk basin much higher than the price prevailing for this commodity in world markets. It is true that the creation of the Ural-Kuznetsk iron and steel industry is dictated among other things by the consideration of the national defense of the country, but nevertheless the high cost of transportation still remains the chief obstacle in the materialization of these plans.

“The solution of this problem was originally based on the creation of a trunk railroad line connecting the Urals and the Kuznetsk basin. A special

commission has been appointed to investigate the possibilities of creating a waterway for hauling iron ore and coal between these two centers. So far, nevertheless, the principal means of transportation in this case is still the railroad.

“The cost of carrying one ton of coal from Kemerovo (Kuznetsk) to the Magnetic Mountain (Magnitogorsk) is estimated at \$7.60. In the United States the carrying of iron ore from the mines by rail to Lake Superior and then by water to the ports of Lake Erie varies in accordance with existing freight rates from \$1.14 to \$1.66 per ton. . . . The Ural-Kuznetsk industry is faced with the same problem. In America, ore is hauled over some 1500 miles, and in Russia the haul from the Urals to the Kuznetsk is from 1300 to 1500 miles by the combination (yet to be created) of waterways and railroads and 2000 to 2200 miles over the railroads only. . . . Meanwhile, water transport being only in the planning stage, freight is still forwarded from and to the Kuznetsk basin by rail.”

Stalin's Gary, Ind., in the Urals promises to become an industrial pyramid, for it cannot operate on coal costing \$7.60 a ton to transport, and there is not enough iron in the Magnetic Mountain to justify the construction of a waterway connecting it with the Siberian coal fields. When Stalin declared boastfully at the convention of industrial directors,

speaking of natural resources, "we have more than we need!", he furnished an index to the perilous application of irresponsible politics to irrefutable economics. It is an index to the fate of the Five-Year Plan, conceived and laid out by studious scientists, as it is being piloted through the clouds of phraseology and dictatorial whimsy to destinations which are not set in the charts and are invisible to the unbiased eye.

The industrialization of America began not only with the railroads, but also with the Lincoln Highway. In this country, abounding in rock, highways are a common phenomenon which arrest no attention.

Russia is an immense rockless plain. You cannot transport rock from the Caucasus to the Upper Volga. There are scores of large provinces in the Soviet Union suffering from a shortage of stone. The *Five-Year Plan* recognizes this vital natural shortcoming characteristic of the country.

When one considers that of the two million miles of roads in the Soviet Union, only fifteen thousand miles are paved; and one takes into further consideration the fact that rock, ordinary rock, is a precious article in many central regions; and when one bears in mind the high cost of modern highway construction and the huge distances characteristic of Russia; only then is it possible to form an idea

as to the enormous capital outlay required in order to provide the land of the Five-Year Plan with the most elementary of all transportation facilities, with the first requisite for building a modern civilization—roads.

Judged in the light of her power resources and her potential means of communication, it would be impossible for Bolshevist Russia to catch up with and outdistance America in our day or at any future date. Only one condition could conceivably alter this situation: were Russia to possess gigantic capital resources in the form of gold, silver, copper, iron and other valuable metals.

**I**F RUSSIA lacks the fuel resources necessary for the laying of the foundation of a challenging modern civilization, she is even worse off as regards the basic metals indispensable to the erection of a new industrial order. The prevailing notion that Russia possesses rich stores of unmined metals in her immense territory does not stand up under close examination.

Singularly poor in iron, copper, gold and silver, the Soviet Union lacks the four essential metals for the attainment of the goals set by Stalin's own edition of the *Five-Year Plan*. If Russia possessed unlimited power resources, if she had the makings of a first-class transportation system, she would still need the metals which have given our industrial era the appellations of the iron age, copper age, the age of the gold or silver standard.

The empire that Stalin would build with the iron cohort of Bolshevism requires first of all not polit-

ical iron, but iron ore in the ground. Yet the Soviet Union, occupying one-seventh of the surface of the globe, is one of the poorest countries of the world in iron ore deposits.

That iron is the foremost requisite for the success of the Five-Year Plan has been recognized by its scientific framers at the outset. They knew that all the talk of Russia overtaking America was bound to remain pure propaganda unless Russia found herself in possession of metal wealth exceeding that of the United States. But such is not the case. In fact, the Soviet position is most deplorable in this regard.

“The main factor in achieving the goal of catching up and surpassing in the briefest time the most advanced capitalist countries (meaning the United States) is the provision of our country with metal and, particularly, with pig iron,” declared Prof. A. Archangelsky, a famous authority, at the extraordinary session of the Soviet Academy of Sciences held in Moscow in June, 1931. He continued:

“The European part of the Soviet Union, if you take into consideration the vastness of its area and if you except the Urals, must be qualified as a country relatively poor in iron ore.”

But what about fabulous Siberia, if that be the situation in European Russia? Siberia's wealth has been inordinately exaggerated. At the same session



of the Soviet Academy, its noted member, A. E. Fersman, reported as follows upon his return from the latest expedition to Siberia:

“As compared with the enormous scale of construction work in Siberia, her supplies of minerals are insignificant. It is sufficient to say that in Siberia the known iron ore deposits amount to 4 tons per capita, whereas in Sweden there are 390 and in England 100 tons per person. . . . The Magnitogorsk plant (the Soviet Gary, Ind., in the Urals) alone will require in 1932 three million tons of iron ore and six and one-half million tons of non-ferrous metals.”

According to Prof. K. I. Bogdanovich, in his “Iron in Russia,” published by the Soviet Academy of Sciences, the visible deposits of iron ore in the Magnetic Mountain amount to 15 million tons; the probable reserves amount to nearly 44 million tons; and the possible unsurveyed deposits total over 48 million tons.

The known visible and probable reserves of the much-heralded Magnetic Mountain therefore total about 59 million tons of ore. The pig-iron content of that reserve, according to Prof. Bogdanovich, would reach about 28 million tons, or precisely twice the production of pig iron in the State of Pennsylvania during the year of 1929. However, should we include the unsurveyed reserves in the

region where Stalin is erecting the famous Magnitogorsk steel city, the total iron ore deposits of 93 million tons would yield less than 47 million tons of pig iron. In the entire Urals, covering an enormous area, the visible and probable reserves of iron ore amount to but 135 million tons. Altogether, including the possible reserves, Prof. Bogdanovich estimates the deposits of the Urals at 360 million tons, but the ores are mostly low-grade and of "limited exploitability."

At the Pennsylvania rate of production, the Magnetic Mountain would be exhausted in about 4 years. According to the estimates of Stalin's administration for the production of the Magnitogorsk steel city, the Magnetic Mountain would vanish in less than a decade. It is perhaps needful to observe that the basic *Five-Year Plan* did not contemplate the erection of a "Gary, Ind." at the Magnetic Mountain, but provided for a modest plant. Since the cost of building the steel city of Magnitogorsk runs into hundreds of millions, the self-cost per ton of the pig iron produced there will reach an unprecedented figure. And in a decade the steel city will become a non-productive monument to the political conduct of the Five-Year Plan, while the enormous investment will have been completely wiped out.

But that gigantic Magnitogorsk enterprise, a

whim of Stalin's political machine, is now in immediate jeopardy, because the Kremlin has discovered, a little too late, that iron deposits alone do not justify the construction of a metallurgical plant if markets are remote and transportation costs prohibitive. Iron ore like coal depends for its exploitation upon its transportability. It is commercially transportable only over short distances. It must be within reach of fuel deposits. But the location of Russia's iron ore deposits is naturally such that wide gaps separate them.

"A satisfactory solution of this problem," asserts Prof. Archangelsky, "will to a great extent depend upon the distribution of the iron ore deposits over the territory of the Soviet Union. . . . It is true, we have two enormous depositories in Krivoy Rog and Kerch (Ukraine), but the first and especially the second are located at the southern border of the country. This increases exceedingly the burden of supplying with pig iron the Central and Northern industrial regions."

The official organs of the Soviet Government recognize that the transportation cost alone will make the price of pig iron produced at Magnitogorsk in the Urals, "much higher than the price prevailing for this commodity in the world markets."

On a smaller scale, the same transportation barrier exists in European Russia where there are only

two iron ore sources, both too far removed from the major industrial centers. "The matter of supplying these centers, once they develop their industries," reads the *Five-Year Plan*, "will encounter essentially the same difficulties as the majority of the areas of the European part of the Union."

Nature endowed vast Russia with a meager share of the world's quota of iron. The United States, one-third the size of the area of the Soviet Union, has five times the amount of iron ore.

"The iron ore deposits in the ground of the Soviet Union, in the European part as well as the Asiatic, amount to 1,836 million tons, with an iron content of 774 million tons. Half of this total comprises the visible and probable reserve; the other half—the possible reserve."

The authority for this statement is the leading Soviet expert on the subject, Prof. V. L. Tukholka, in the official compendium entitled "The Wealth of the Soviet Union." He continues:

"As regards iron ore deposits, the Soviet Union occupies a place which is not to be found among the leading countries. In size of these deposits, the Soviet Union is surpassed by the United States, France, England, the West Indies and Sweden."

If on a quantitative basis, Russia is the sixth country in the world in iron, on a per capita scale she lags behind even more. Germany, Spain, Nor-

way, Greece, Luxemburg are far ahead of Russia in iron wealth in proportion to population.

The United States possesses nearly ten billion tons of unmined iron ore. During the last decade the pig-iron production in the United States alone was equal to nearly half of all of Russia's unmined iron. The iron found in America above ground, in the form of machinery, buildings and equipment, exceeds all the reserves, visible and possible, known to exist in the immense territory of the Soviet Union.

Such, in prose, is the iron epic of the poetical Five-Year Plan of Stalin, the Iron Man of Bolshevism.

But in this age of electricity, of the automobile, the radio, and sanitary plumbing, non-ferrous metals form a vital element in civilization. Copper, lead, aluminum, nickel, vanadium and a dozen other products have long since been recognized by technologists as indispensable to the modern standard of living.

In this respect, Russia far from being the owner of unlimited resources, is actually in a critical condition. Stalin boasted: "We have everything! We have more than we need!" In point of fact, the Soviet Union has almost nothing in the way of non-ferrous metals. Says the *Five-Year Plan*:

"The tightest corner (sic!) in our national econ-

omy is non-ferrous metallurgy. The production of non-ferrous metals before the war as well as during the past five years has been insignificant. Only now do we commence to cultivate the development of such metals.

“The actual and assumed deposits of ore of non-ferrous metals in the main known sources of the Soviet Union are very small and provide the plants now under construction and those already in operation for not more than a period of five to ten years.

“The distribution of these ores in the various localities of the country makes the prospect of their exploitation difficult, partly because of weak veins and sometimes because of the absence of railway lines that would connect them with the industrial centers.”

The total known copper reserves of the Soviet Union, expressed in terms of American production and consumption, would be exhausted within a period of twelve to fifteen months, according to Prof. A. D. Breiterman, the leading Soviet authority on copper.

“Our known copper resources,” he writes, “the widespread opinion as to our extraordinary wealth in copper notwithstanding, are comparatively modest.”

Stalin declared that Russia had more than she

needs, that the Urals had everything. The *Five-Year Plan* proves that the Urals have no coal and are barren of oil. And now Prof. Breiterman destroys the legend of the Urals being a great treasury of copper, stating:

“The total reserves of copper ore (in the Urals) can be fixed at about 600,000 tons, not counting about twenty per cent loss in mining. The data in our possession make an altogether definite picture of a character demanding restraint and caution in judging the copper resources of the Urals.

“On a world scale, our copper resources can in no manner pretend to first-class rank. There can be no talk of comparing our reserves with those of North America. Let us not forget that the North American copper mining industry smelts in the course of twelve to fifteen months’ operation ore to the amount of 1,230,000 tons” (which is more than Russia’s known total copper resources).

Before the war, according to Prof. Bogdanovich, Russia was the tenth country in the world in the production of copper. She has been a regular large importer of copper, and the *Five-Year Plan* condemns her to dependence upon foreign copper. The same is true of lead. Russia used to import 98% of the lead used in the country. She still produces lead and zinc in insignificant quantities. The known deposits of such vital non-ferrous metals

as nickel, tin, aluminum, vanadium in the Soviet Union are admittedly negligible. Should the Five-Year Plan succeed in starting many of the plants under construction, it would mean that the Soviet Union would be forced to subsist on foreign metals. But she could do that only if she possessed the capital resources to purchase them, notably precious metals.

But the general belief that Russia is the owner of great reserves of precious metals, which she could in turn convert in the world markets into industrial metals, has no foundation in reality. Even the most sanguine Soviet experts estimate Russia's unmined reserves of gold as totaling 10,000,000 pounds, valued as \$3,000,000,000. If the mining and extraction of gold be calculated as costing fifty cents per dollar, then all of Russia's gold treasures in the ground would be worth one-half of the hoard of gold held by the Bank of France, and about one-third of the bullion held by the United States. All the unmined gold in the bowels of Russia is but twice the amount which France took out of this country within a period of six weeks in the summer of 1931.

As a gold-producing country, Russia had reached its heyday in the 19th Century. According to E. E. Anert, in "Gold," published by the Soviet Academy of Sciences, Russia produced during the 114 years



preceding the World War 32% of the world's total gold supply, valued at about \$1,410,000,000. Its relative position in the industry was declining while the United States, Southern Africa, Australia, Canada and Mexico were rapidly gaining. The culminating point of the Russian gold industry was in 1885. At the outbreak of the World War, Russia was mining about 10% of the world's gold output.

The gold industry developed in waves in Russia. The exploitation of gold fields and mines was abandoned as soon as the yield became poor and as soon as new gold-bearing areas were discovered, with the result that "the rich sections in the great and numerous old gold-bearing areas have been exploited and a multitude of poorer sections remained." From the Urals to the Pacific Coast, the numerous gold regions have been tapped and made to yield their first harvest. What is left is undoubtedly very valuable, but requires the installation of modern machinery for the extraction of gold by the newest mechanized processes.

The Soviet Union is poor in iron and in gold, and has almost no copper. But her silver deposits are virtually non-existent.

The total silver deposits in the ground of the boundless Soviet Union are a little in excess of three million pounds, valued at about \$20,000,000. Russia imports over 96% of her silver require-

ments. The highest production of silver ever achieved in that country, in 1912, amounted to two-thousandths of one per cent of world production. Russia's banner silver year yielded but one per cent of the United States average annual production of silver during the last five years.

The Soviet Union does possess huge reserves of platinum in the ground, valued at about \$250,000,000, but the platinum market has catastrophically declined since the World War, and the annual Soviet production of platinum amounting to \$3,000,000 remains an insignificant factor in the progress of the Five-Year Plan, even as the wealthy manganese mines in the Caucasus provide but a small annual revenue.

The proverbial poverty of Russia is unquestionably due, in a large measure, to centuries of misrule, exploitation and waste on the part of the governing exploiters.

Stalin's régime, like that of many past absolutist governments, has drained the country of her visible wealth and exposed her population to a misery unparalleled in modern times, and brought the Russian standard of living below that of China and India.

But fundamentally Russia's poverty springs from the poverty of her soil and mineral wealth, from the climatic conditions of the country, from her

geographical location and inland character, from her segregation from the commercial highways of the world, from the vast distances lying between her interior and the few harbors she possesses, and from the huge and fruitless and uninhabitable areas she covers.

Russia's outstanding source of energy is her man power. But an industrial civilization is predicated upon substituting for the primitive power of man that of the machine, and upon the equipment of a country and a population with mechanical men and horses. The man power of China, the man power of India is greater than that of Russia. Man power in industrial terms is a source of poverty. Man power without mineral power condemns Russia to remain an agricultural country, with a constantly declining standard of living so long as her birth rate continues to rise.

**T**HE resources of the Russian soil are far from being commensurate with the dimensions of the land. The vastness of the area of Russia is responsible for the widespread misconception of her potential ability to develop into a first-rate agricultural power. Yet the geography of the country is such as to limit severely her habitable territory. In fact, agriculturally these resources are just as inadequate for the huge and growing population as the mineral reserves are for industrial progress.

From the standpoint of agriculture, European Russia is overpopulated. With an area of 1,700,000 square miles, more than half of that of the United States, and with a population equaling that of the latter, European Russia is no land of open spaces, of farming bonanzas. When one considers the northern location of the country, as illustrated by the fact that Moscow lies 700 miles and Leningrad 900 miles north of Montreal, it becomes clear why

the density of population in the zones fit for cultivation is as great as that of the most congested parts of Western Europe.

Because of this condition, the beginning of the present century witnessed a rising tide of emigration from the southern and climatically favorable parts of European Russia into the uninhabited temperate zones of Siberia. The migration, interrupted by the war and the revolution, of peasant pioneers who left their native villages in quest of land in Asiatic Russia embraced millions, and was an overflow dictated purely by economic necessity, by acute land hunger.

It is no accident that 15 per cent of the total area of Russia holds about 80 per cent of the population. It is understandable in the light of the fact that nearly all of Russia is located on a parallel which runs north of the United States. It is an inevitable consequence of immutable geographic limitations and their bearing upon the souls of the country.

According to Prof. W. Elmer Ekblaw, who went to Russia as a member of the Second International Congress on Soils, held in 1931, the significance of the northern location of the Soviet Union lies, first of all, in the fact that the growing season there is comparatively short. "Even in the great grain-growing belt in Southern Russia, the growing sea-

son is not much longer than in the wheat-growing section of Canada. Frosts come late in the spring and early in the fall. Some years the growing season is too short over the northern half of Russia for even the raising of potatoes."

"The northern location of Russia is particularly significant," declares Prof. Ekblaw, "in that it eliminates from consideration as a food-producing land practically half of that great area of eight million square miles which constitutes the Soviet Republic. Half of that area need not be considered as even moderately habitable or as a region of very large production of foods or other things for man's sustenance." That zone is and must be most sparsely settled, because it can support but a few hunters, trappers, fishermen, and reindeer herders.

The soils of northern Russia are acidic and unfit for agriculture, except by special care and methods. Prof. Ekblaw points out that only south of the 55th parallel in Russia are the soils favorable, and that circumstance determines the density of population in the southern zones which are located in the same geographical position as the inhabited parts of Canada.

But the southern zone, too, suffers from climatic handicaps. As Prof. Ekblaw states: "The northern boundary is the boundary fixed by the shortness of the growing season, one of those limitations that

nature has set inexorably and insuperably and that man has never been able to transcend to any great extent. The southern boundary is an equally inexorable boundary, one fixed by the inadequacy and irregularity of the rainfall. That southern boundary is the line of less than 20 inches of rainfall annually on the average over a long time period. Cereal crops could be grown there without trouble, but on the average two-fifths of the years over a hundred-year period, are marked by wholly insufficient amount of rainfall for the production of cereal crops. Consequently, when the drought periods come, there is failure of the crop upon which the people depend. The population is not fixed by the years of adequate rainfall, but by the years of insufficient rainfall.

“In this zone the soils are extremely fertile and will grow almost any quantity of crops when the rainfall is adequate; but when the rainfall is insufficient, even with the highest mechanization of the land, and the most scientific treatment it is impossible to produce a crop. Then famine threatens the people. That southern zone is preeminently a grazing land and should be kept a grazing land except in a few of the more favorable locations.”

This area belongs to the regions known among geographers as famine zones, the like of which are to be found throughout the world. “Because of

that great drought famine zone in the south and because of the similar short growing season famine zone in the north," according to Prof. Ekblaw, Russia with her teeming millions thus delimited, has always remained in a slough of misery and distress from which she cannot very well emerge. Irrigation cannot overcome the aridity of the soil to any great extent because of the low relief of the land and the inadequacy of the rainfall. Irrigation on a large scale is practicable only where there are mountain slopes, and cannot be developed successfully in extensive flat areas such as characterize the steppes of Russia.

"The nature of the soil in northern Russia," observes Prof. Ekblaw, "is such that it is a mistake in practice to collectivize the land and throw it into big units, cultivated by machine methods. Through long ages, long centuries of trial and error, the Russian peasants have found, just as the farmers of Scandinavia and Northern Germany and the midlands of England have found, that the land must be cultivated in strips, ridged up in the middle, and trenched on either side, the more rapidly to drain the land and retard undue acidity. That process of agriculture which we call strip farming has obtained in Northern Europe ever since agriculture became successful. To level



that land and use machinery on it is a mistake; it must be cultivated in narrow strips if crops are to be grown there. If leveled out flat so that acidification goes on too fast, the land becomes "sick," as has been said of some of our own land in the Northwest. Only by the strip method of agriculture can the land be farmed successfully and permanently. Vast areas of Russia are being cultivated extensively which should not have been changed from the old strip farming system of agriculture.

"The consolidation of the small farms into large units, whereby each peasant ceases to be self-sustaining, will reduce the aggregate amount of food produced in Russia by ten to twenty-five per cent. In the old days of small-farm agriculture, the peasants were self-sufficient. Each had a garden in which he raised vegetables, and fruit, chickens and pigs. He had cattle from which he got his milk and some hides. His farm was largely self-sufficient. In years of favorable conditions, he produced a surplus. Now that system is gone, and he is using machinery on large field units of commercial crops. That may grow more wheat, barley, rye, sunflower seed, flax, but in the aggregate it will produce less food for the people than the old self-sufficient system of agriculture, and will continue the inadequate supply and the monotonous diet of the

Russian village and make Russia's food problem, always acute, more acute now than ever."

Prof. Ekblaw concludes his observations on the subject with the remark, "when the crisis comes, as it will inevitably come in Russia, when the drought prevents the production of crops for two or three years,—the wheat crop in large sections was only one-half of normal and the potato crop a failure in many of the northern sections last summer,—we are going to hear of starving thousands and millions of Russians again as in the past."

The ever-present food problem in Russia was and is a result of the hunger for land, aggravated by political misrule. The hunger for land, that virus of modern Russian political history, was and is an outgrowth of remorseless nature. The economic geography of Russia has ever been the determining factor in the retarded development of her civilization. The natural limitations which have always made for her poverty and isolation from the West, doom Russia to a future of relative backwardness.

The history of Russia has been shaped by her physical environment. It is a history apart from that of the Western world. The development of Russia had little in common with the course of Western civilization. During the march of the

latter, there have been aberrations which threw it into contact with the dark continent of Russia. Ancient Greece sent out adventurous colonists who planted themselves on the shores of the Black Sea. The Norsemen occasionally penetrated the northern parts of Russia. Byzantium followed for a while in the wake of the ancient Greeks and imported Christianity into Russia, which, it is now generally recognized, drove no deep roots into her soil. The enterprising traders of the Hanseatic League followed the lanes of the Norsemen. But all these were sporadic invasions to which Russia remained largely impervious.

The main stream of Western civilization did not draw upon Russia and did not contribute to the growth of her civilization. It was the Eastern influence which permeated her life and moulded her development in lasting ways. This is especially illustrated in the difference between serfdom in the West and serfdom in Russia, a difference both of character and origin. In the Western world, serfdom developed. In Russia, it was introduced. In the West, it sprang into being at the dawn of civilization with the integration of society, and underwent an evolution from slavery to complete emancipation as part and parcel of the evolution of society.

It is a common misconception that serfdom in Russia had existed since times immemorial. As a

matter of record, Russia until the Seventeenth Century was a country of freemen. Feudalism did not develop there over a period of fifteen centuries. The soil did not make for it. The Mongol traditions did not make for it. When serfdom was established, it was imposed from above, by autocratic decree, even as the present form of collectivization. And in the course of the two and a half centuries of the existence of serfdom in Russia, the peasant chattels revolted several times on a scale which shook the very foundations of the state.

The geography of Russia, particularly of Muscovy, made for individualized cultivation, for the ownership of small strips of land. Hence, the despotism required for the maintenance of collective slavery. Hence, the oppression needed in order to fetter to the soil millions of free settlers whose traditions were alien to feudal bondage.

Russia burst the bonds of collective farming in the same year in which the negro slaves building agricultural capitalism in the South on the cotton plantations of their paternalistic masters were set free. That strange coincidence of history may be due to the unusual similarity in character and duration between negro slavery in the United States and serfdom in Russia.

In Russia, the liberated serfs did not win the land. The feudal lords remained, and the peasants

of Russia had to toil for more than a generation in order to pay to the masters for the small holdings acquired. The Volga continued in rebellion. "Land and Freedom" was the cry of the millions of wretched tillers. The feudal order was giving way slowly, the landlords and the church persisted in collecting, in a new manner, the earnings of the masses of peasants. There was never enough land for the former serfs. There was never enough bread.

The need of more land and more bread was the yeast of the revolutionary ferment in Russia. The structure of the autocratic state remained essentially feudal, basing itself upon the hundreds of thousands of land-owners. The nature of the revolt against that state was essentially directed against agricultural capitalism, against patriarchal collectivism. The peasant went in quest of individual opportunity, and because of his overwhelming preponderance as well as because his labor provided the life-blood for the state, he was recognized as the most potent threat to the ancient order while being at the same time the most dangerous weapon in the hands of all revolutionary buccaneers and ideologists.

Such was the agrarian question—the axis of the Russian Revolution. It revolved around "Land and Freedom." Its growth was spontaneous, springing from the fabric of native soil. Its theory was home-

made and elementary, having nothing to do with the revolutionary doctrines of the advanced industrial West.

The Russian Revolution was primarily a peasant revolt on a vast scale. The industrial proletariat that had come to the fore since the last decade of the Nineteenth Century was a green and stubborn offshoot from the trunk of a mammoth peasantry. It was so fresh from the steppe, so bound to the farm, that its cry, too, was that of "Land and Freedom." The Russian worker was a semi-peasant, and the promised land appeared to him in the shape of a strip of his own soil, away from the hideous machine.

It was under the impact of the monstrous peasant wave that the autocracy went down, sweeping along to irreparable destruction the pillars of the feudal system, the remnants of serfdom, the surviving order of outworn agricultural capitalism. Bolshevism had nothing to do with the agrarian revolution. It was the World War which gave 10,000,000 peasants arms to turn against their foes. The peasant in the garb of the soldier demolished feudalism. So great was his thirst for land, that he insisted on peace at once. And when the Provisional Government failed to give it to him, he dictated it, in the words of Lenin, "with his legs, by running away from the front."

But Bolshevism imbibed enough of the West to attempt a novel synthesis of the industrial revolution with the agrarian. The peasant on the Volga wanted land and more land. But that course would only undermine the revolutionary aims of the proletarian element which was being led to a new form of society—Communism. Hence, Lenin's theory of the dictatorship of the proletariat. The peasant would have to be led. He would have to be harnessed. The proletariat would serve as the leader. The harness would be provided by the dictatorship, exercised by one party. Lenin left the Volga for the Seine with the problem of the agrarian revolution. He came back with the gift of the dictatorship of the proletariat, the cornerstone of Bolshevism—a gift which peasant Russia did not readily accept but which Lenin was too careful to impose upon his native soil.

The Russian Revolution was at the bottom agrarian, at the top proletarian. In its depths it was and remains a revolt from collectivism in favor of individualism. At its height it was and remains an attempt to bridle the peasant with a new brand of collectivism. The revolution on the Volga was nationalist. The Bolshevist revolution was internationalist. To the peasant inhabiting five-sixths of Russia, Communism was an alien force let loose in his midst by the devil. But the peasant had no con-

ception of statehood. Bolshevism had a pattern all fashioned by the hands of Lenin. And Lenin knew how to graft that pattern upon the inchoate tide of liberated serfs frantically crying, "Give us land!"

On the night of November 7, when Lenin had barely had time to organize the Soviet Government, long before the factories and the banks and the mines were nationalized, almost immediately after the capture of the Winter Palace and the fall of the Provisional Government, Lenin hastened to draft in pencil the first decree of the new régime, the decree abolishing the ownership of land and making it a national property. At that hour, when the crudely worded but ineradicable manifesto was read before the Congress of Soviets, the greatest and most durable victory of the Bolshevik Revolution was secured. A foundation of 120,000,000 peasants won over by the nationalization decree was erected under the Bolshevik dictatorship, and the greatest agrarian revolution in the history of the world became an accomplished fact.



**F**OR the first time in history ownership of land was abolished in an area exceeding one-seventh of the surface of the globe. The peasantry that had been reared on the traditions of land-hunger did not quite understand what the nationalization meant. What they had striven for was to divide the landlords', the church and the state holdings, to augment their own strips, to own them. But these innate and inevitable tendencies were deflected when Bolshevism told the peasant to go out and take the land, to vent his hatred and vengeance against the former masters, and to divide the spoils. In this furious rush to grab parcels of cherished soil, in the blinding trail of arson and pillage of estates and full bins, the peasant could not and did not pause to understand that the fund of land was limited, that the population was bound to increase, that the holding would eventually get smaller and smaller, that the land-hunger could not be sated by

a mere acquisition of the masters' domains, and that the title to the land was not vested in the tiller but in the state which exercised the dictatorship of the proletariat.

The ownership of the land was abolished, which meant a gain for the doctrine of social revolution, but a loss for the 120,000,000 peasants that made it. The peasant won an extra ten acres but at the same time lost title to his own six or eight acres. But so long as the immediate greed could be satisfied, the peasant was deluded into imagining himself the proprietor of his farm. Yet he could not sell any of his land. He could not buy an extra strip. He acquired land only by redistribution as his family increased and lost it as it decreased. This then was the unexpected and far-reaching contribution of Lenin to the perpetuation of the social revolution. No sooner had the vestiges of the Volga feudalism been torn to shreds, than Lenin drove into the soil the stake of a new and seemingly revolutionary feudalism. The agricultural economy was transferred from the rails of collective servitude for the old owners to the rails of a similar servitude to the new title-holder, the Bolshevik dictatorship, but in theory only—for the time being.

The urban Soviet state needed bread and lacked the necessary organizational and technical weapons to make the peasantry turn it in collectively. And

so it came to be that the Soviet Government was compelled to give the agricultural vassals a breathing spell. It was not an easy breathing spell for the new serfs. The new government did what all governments had done—it imposed severe taxation. If the peasant had to pay rent to his landlord before the revolution and taxes to the state, his taxes to the new régime exceeded that of his total tribute in the past, for the new régime had inherited wreckage from the war augmented by famine and the destruction it had itself let loose. If the peasant did not surrender his produce, in the naive belief that it was the product of his own toil, that it was his own property, the new state sent armed detachments with bayonets and muzzles that resembled the pre-revolutionary models to requisition, confiscate by force and in case of resistance to set fire to whole villages and drive the opponents into the wilderness. If the peasant had dreamed of peace, of a free market for his yield, of a new roof over his cabin and a new shed for his cattle, he was quickly undeceived, as individual enterprise was penalized, a larger crop made its owner automatically a class enemy of the state, an extra cow singled its proprietor out as a potential capitalist, and a new roof crowned him as a “kulak”—the equivalent of the term bourgeois in the city.

Long before the revolution Lenin had discerned

the evolution in the village since the emancipation of the serfs in 1861. Individual peasants, endowed with more ability, more thrift and industry, and with greater shrewdness, had been overcoming the handicaps of the old order and developing into farmers not unlike those found in Western countries. This process was expedited after the revolution of 1905 and the Russo-Japanese War when the Czarist régime opened new fields of opportunity for peasants to acquire additional land as a means of abating the revolutionary ferment. As a result, the ancient uniformity of the peasantry disappeared and the mass of agricultural population presented a body one end of which consisted of landless, wretched and often indolent and drunken farmhands and the other of a fairly prosperous stratum of farmers employing hired labor and having an income which at times exceeded that of a poor squire. But regardless of his property, the peasant remained a member of the lowest social caste in the country.

If this process were permitted to continue among the peasants, what would happen to the social revolution? This question was the one to which Lenin applied himself early in his life. What was the sense of abolishing the capitalist class in the city if another capitalist class, the basic one, were permitted to exist and function and grow in the village,

controlling the country's fundamental source of capital—grain? What was needed, Lenin discovered, was to bring the class war into the village even after the disappearance of the landlord. And since the economic status of the peasantry was varied and frequently at conflict, all that was necessary was to differentiate the different strata judging by their possessions. Thus came into being the division of the agricultural population into "bedniak," the poor peasant, "seredniak," the middle peasant, and "kulak," the wealthy peasant, and arbitrary classification which proved of terrific moment. With such an arsenal of primitive rivalry, it would be easy to introduce the class war into the village, by setting the "bedniak"—the village proletarian—against the "kulak."

Before the World War, the alignment of classes on the land had been so changed that the "kulaks" produced altogether more than three times the amount of grain which the landlords' estates yielded. The landlords and the "kulaks" combined were responsible for half of the total grain production in Russia, the other half coming from the farms of the poor and middle peasant. In other words, although the peasants continued to cry for bread and land, they were in fact the producers of more than four-fifths of the grain. The export of wheat from Russia had achieved such enormous

proportions, the growth of the cities in the country became so rapid, that the markets offered an unusual incentive to peasant initiative, to individualized farming, to the acquisitive instinct. From year to year the peasant moved upward along the ladder of per capita wealth. The revolution interrupted this process.

The revolution not only deprived the feudal owners of their holdings but also expropriated the "kulaks." Their acreage was reduced to the same level as that of the other peasants, their cattle and other inventories were confiscated in part, their taxation burden was heavier than that of any group in the land. But the "kulak" was kept alive in theory if not in reality, even as the bourgeois was in the city. Just as the impoverished capitalist was persecuted in town, so was the degraded "kulak" held up continuously as a symbol of the class war. A former "kulak" was like a leper; once a "kulak" always a "kulak." He was the object of unremitting persecution. When there were not "kulaks" in the village, they had to be invented. The dictatorship dictated that. In terms of economic potency, however, the peasantry was leveled by the revolution to a remarkable degree. The landless received land. And the average holding of the peasant was singularly fair in proportion to the souls per household. In reality, the revolution produced a middle peas-

antry, of a somewhat lower coefficient than that of before the war, but based upon as just a scale of division of wealth as any human community could devise.

“Is it possible to drive forward at an accelerated pace our socialized industries having such an agricultural base as petty farming which is incapable of creating large surpluses and which at the same time forms the predominant power in our national economy?” inquires Stalin, and proceeds to answer: “No, it is impossible. Is it possible to base the Soviet power and socialist construction for any length of time on two different foundations, the foundation of large-scale and consolidated socialist industry and the foundation of the most divided and backward petty-trading peasant economy? No, it is impossible. At some future date it must end in the complete collapse of the whole national economy. Where is the way out? The way out is to consolidate agriculture, to make it capable of accumulation, of reproducing wealth, and in this manner to transform the agricultural base of our national economy. . . .

“Lenin said: ‘Petty production *gives birth* ceaselessly, daily, hourly, elementally, and on a whole-sale scale to capitalism and to a bourgeoisie.’”

But the natural conditions which make for petty production and the eternal processes of life which

make for inequality of natural endowments, which make for greater or lesser ability, greater or lesser ambition, continued to operate. What man would divide rationally, nature redistributed irrationally. At the theoretical hour in which all of the hundred million peasants found themselves equal possessors of the precious soil, the new process of differentiation already began. Now it was the enterprising Ivan who begged leave to move out of the village and take up a stake several miles away at some clearing in the wood in order to build up his independent patrimony. Now it was Peter who was enterprising enough to go to work to the neighboring town for the winter instead of hibernating on his oven, and come back with enough funds to purchase an extra horse which meant additional crops. And now it was Stepan who in return for milk which his cow gave bountifully or in return for a few bushels of rye which his land yielded in a greater measure was able to secure the services of his poorer neighbor and thereby gain greater income which made for further increment.

From 1917 to 1927, during the first decade of the revolution, the Soviet dictatorship, in spite of all its Draconic policies and weapons, found itself at a loss to arrest the natural rehabilitation of the peasantry on the foundations of the new agriculture. Instead of 15 million small peasant holdings in the



country at the outbreak of the revolution, there were 26 million ten years later. The restrictions on the "kulak" class had reduced its production to 14% from 38% of the total crop. "The poor and middle peasants began to produce after the revolution 1½ billion poods<sup>1</sup> more grain than before the revolution," declared Stalin. "Such are the facts which testify that the poor and middle peasants received colossal benefits from the Soviet revolution."

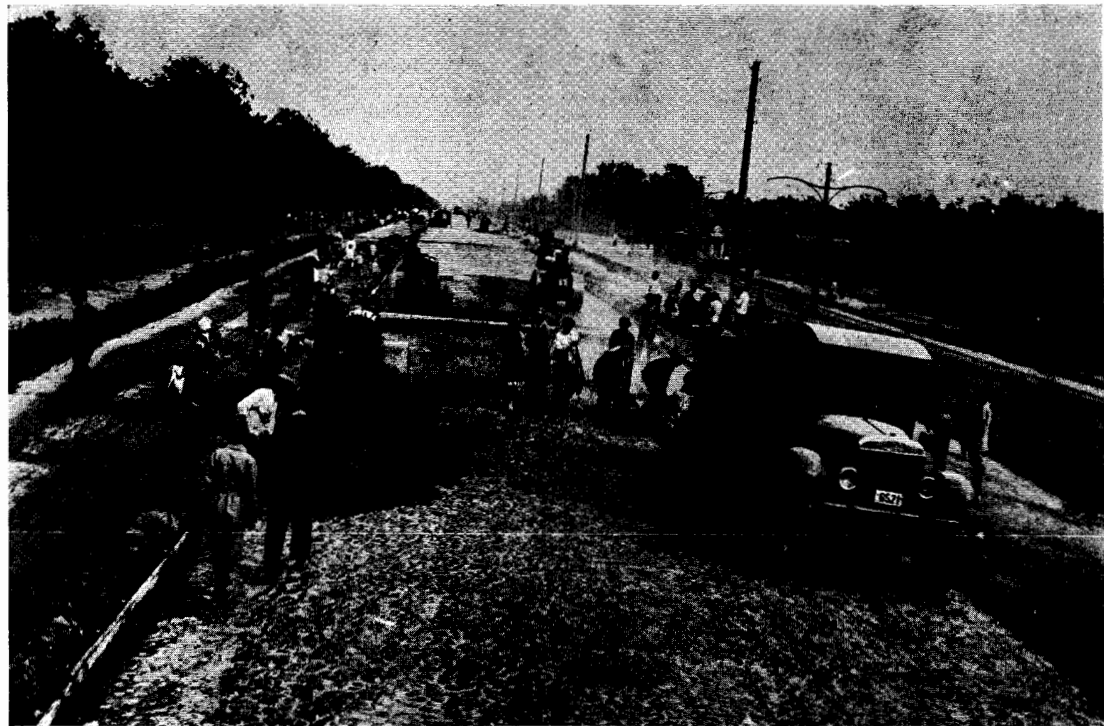
The farmerization of the peasant was proceeding despite the severity of the state regulation. The division of the land into smaller and smaller holdings harbored a direct threat to the cause of Communism. The individual farmer only produced as much as he needed for his maintenance unless he could convert his surplus into manufactured goods. The city was unable to supply him such goods except at exorbitant prices which rendered a winter's labor into the equivalent of a pair of boots. The petty farmers thus held a sword over the urban dictatorship by withholding its bread from the city. Socialism had anticipated this eventuality and advocated the consolidation of small farms into large ones, as a more economical and productive system. Lenin shortly after the revolution launched a campaign for the organization of Soviet state farms and of

<sup>1</sup>Pood, a Russian weight equivalent to about 36 pounds.

collective agricultural cooperatives. During the period of civil war, the era of Military Communism, when the grain shortage in the cities was calamitous, a great deal of effort was put into the promotion of these agricultural units alongside of the forcible requisition of grain. They never flourished, but were never abandoned, as they offered the only theoretical solution for the abolition of individual farming and the conversion of the present class into a proletariat.

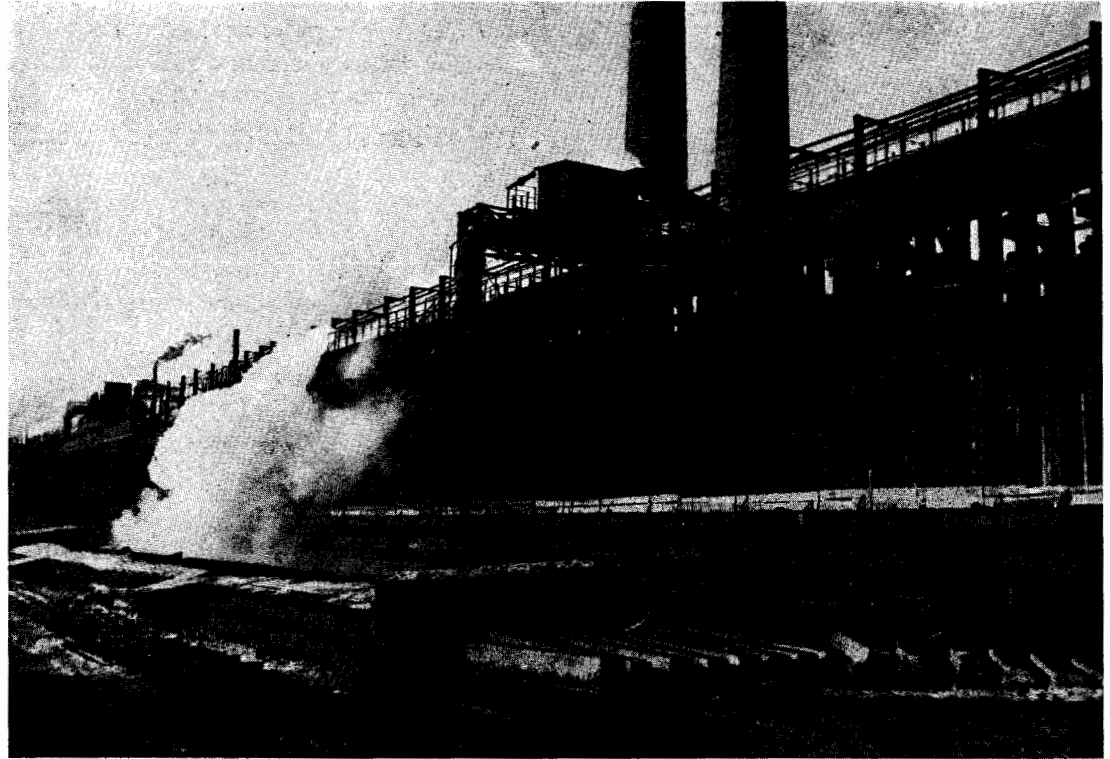
The New Economic Policy, dictated by the starvation in the cities, allowed the peasants a free market for their produce. But a free market implies an equitable exchange of goods. Since the socialized industries were unable to furnish the commodities required by the village, the city and the dictatorship continued to depend for their existence upon a widely scattered mass of petty agriculturists. But during the ten years these agriculturists were spontaneously rebuilding the basic industry of the nation, each holding on however to his own strip, the dictatorship found it possible, by squeezing the 26 million life-cells methodically and relentlessly, to experiment with its state industries, to maintain a large standing army, to reestablish a stable currency. At a high rate of waste, the city and the state nevertheless benefited by the accumulation of wealth which was going on over the

Surfacing the Moscow-Leningrad highway. Of the 2,000,000 miles of roads in the Soviet Union, only 15,000 miles are paved. Lying flat and low, Russia is deficient in ordinary rock. The entire road building schedule of the *Five-Year Plan* is less than one-third of the 50,000 miles of highways constructed or paved in the United States in the single year of 1931.



At Magnitogorsk, the Soviet "Gary, Ind.," a gigantic steel city is rising. Costing over \$100,000,000 these steel works are being erected

at the Magnetic Mountain in the Urals where the available iron ore deposits are sufficient to last for only a decade. When the iron reserves in the Urals are exhausted, this costly and much-advertised plant will become a non-productive monument to Stalin's folly.



boundless steppes. Having rendered the agrarian danger immune by the nationalization of the land, the Bolshevik government was living and in a measure prospering off the labor of the peasant.

But the rate of progress of the Communist industry was way behind that of the individualized agriculture. And there seemed no way out of the everwidening disparity. Where would it lead? Eventually the enormous agricultural sponge would absorb all that the industries of the city could produce, and yet allow the city barely enough grain to subsist. In fact, as the individual landholders multiplied, the village retired more and more into its own shell and the tentacles of the city seemed less and less able to draw its sustenance from the soil. And unless the city could miraculously shower upon the land multitudes of articles of elementary necessity, it would find itself virtually blockaded and boycotted by the village.

This is precisely what happened. As the crops of 1927 were gathered, as winter approached, the grain collections for the urban population and the Red Army were so low that, after several years of comparative prosperity, starvation once more stared in the face of the proletarian dictatorship. "The inevitability of a serious crisis in our entire national economy," in the words of Stalin, confronted the Soviet régime.

Bolshevism found itself on the string of the peasant cart. It was certainly not headed for socialism. For the agrarian revolution was not a socialist experiment. The tens of millions of peasants had in fact overthrown feudalism in their eagerness to attain bourgeois individualism. The Soviet dictatorship was like a fortress besieged by an unorganized and passive horde of farmers. It could remain encircled for quite a while and await its inevitable doom. It could make peace with the enemy and compromise on the future form of society. But Bolshevism was not reared on compromise. It could advance and attempt to regiment the inert masses, to use the prerogatives of the dictatorship in order to force the peasants into further dependence upon the state, and it chose the latter course.

Only time can tell whether the violent and fluctuating attempts to press the individualized millions back into collective organizations, to consolidate the divided holdings into estates of large size is an attempt to reverse the original function of the revolution and to reimpose feudalism upon an enormous population. What has been occurring in Russia is either a new revolution or a colossal counter-revolution, but in both cases of vast moment. The dictatorship, having once taken title to the land, proceeded now to take title to the peasants' means of production, his cattle, his imple-

ments, his household goods. But at the same time it offered the peasant the prospects of a free and bountiful existence, of a higher standard of living and culture, by furnishing him with the most modern means of production, with the tractor and the combine, as a guarantee of increased crops, increased release from drudgery, and eventual salvation through the blessings of the machine.

The Bolshevist dictatorship, with a blind faith in the machine and in its own instruments of force, proceeded to herd the divided peasants into large flocks gathered upon artificially created areas, regardless of the natural limitations of the soil. It was driven to do so by the shortage of food, by the need of self-preservation, and by the need of capital. The Five-Year Plan, on the agricultural front, assumed the character of an offensive campaign reeking with mad destruction and valorous fanaticism. This new agrarian revolution attempted not only to root out the social traditions of thousands of years, but also to violate the natural conditions of Russian agriculture. Because of the violence of the attack, the dictatorship actually succeeded in its first steps in hitching the primitive agricultural power of the country, at terrific cost, to the most advanced motor power of the age. Certainly never before have one hundred million human beings found themselves torn from their accustomed environ-

ment like a huge herd of game driven into a preserve and there trained to become domestic. Never before has the population of an entire country been thrown into such unutterable confusion. The new agrarian revolution was at once a war from without and a war from within, for while the dictatorship was assailing ruthlessly the incipient and potential capitalists of the village, the poor peasants were incited to fratricidal strife against those who were better off. The exact consequences of this man-made holocaust in the economic structure of the Russian people will remain incalculable for many years to come.



**T**HE basic *Five-Year Plan*, as framed by the scientists, set goals in harmony with Russia's poor capital and natural resources. It was admitted that the achievement of those goals would subject the country to a great strain. In the field of agriculture, the creation of collective and state farms was limited to about 12% of the total homesteads, leaving a large class of independent peasants to produce wealth and revenue to enable the government to finance its industrialization efforts. In the realm of industry, the plants to be erected were laid out on a modest scale, in accord with the demand for goods, with the resources and technical help available.

Less than two years before Stalin embraced the idea of planning as an effective political platform, in April, 1927, he declared: "We need the Dnieprostroy as much as a moujik needs a phonograph." Two years later the Dnieprostroy as orig-

inally proposed in the *Five-Year Plan* was declared a paltry project, and its design was expanded so as to make it the largest hydro-electric enterprise in all Europe. The same procedure was applied to scores of other projects. Estimates were revised upward and upward. The same moujik was suddenly found to need gigantic, sometimes fantastic, establishments requiring a capital outlay many times the amount originally budgeted by the *Five-Year Plan*.

The goals of the *Five-Year Plan* were upset, all the natural limitations of the country were disregarded. The dictatorship adopted planning as a political slogan. Instead of a graduated and coordinated movement forward, the *Five-Year Plan* became a series of reckless leaps towards improvised goals that far exceeded the potentialities of the land and that destroyed the very essence of planning.

Planning a new economic order was not a Bolshevik invention. It could not have developed in a country as primitive as Russia. Planning was first formulated in Germany by an academic economist, Karl Ballod, shortly after the introduction of electricity as an industrial form of energy. It was designed not for peasant countries but for technically advanced nations. It was obviously predicated upon a sufficiency of power resources and an extensive fund of mechanical plants. Visualizing an increase

of such power, the author beheld the possibilities for reorganizing human society in a way that would release it from drudgery, give it more leisure, more wealth, and a higher degree of culture. Not Marx but Faraday was the father of planning.

A proletarian and urban dictatorship in an agricultural country such as Russia was inevitably fated to a terrific conflict and the necessity of exercising force to maintain itself. The Revolution in Russia was, as far as the majority of the people was concerned, a move towards enhanced individualism. But the Bolshevist political coup was collectivist in aim, envisaging a socialized state. This divergence in the body that was Russia had been foreseen long before the Revolution by Lenin as well as by the leaders of the other political parties. It had formed the subject of endless controversies, of numerous works, of heated oratorical debates for more than a decade. When Lenin nationalized the land on the night of the Bolshevist seizure of power, it was in consequence of this situation.

And to meet the incessant tide of individualism in the village, to combat the continuous increase in potential capitalism on the land, Lenin from the very beginning of the Revolution raised the slogan of planning and advanced his famous electrification thesis. Lenin was met with derision. His in-

sistence on his device was largely misunderstood in his own camp. His followers had the political power, what more was needed? But Lenin knew that eventual doom faced the dictatorship unless the peasant question were solved.

It was the peasant question, therefore, which was the soil of planning in Russia. It was to save the political power that mechanical power was relied upon. Again and again it was emphasized that electrification was the sole way out from the alley into which Bolshevism had walked in November, 1917, when it took over the reins of government in the hope of a coming world revolution. If Germany had gone Bolshevik, its technology would have been at the command of Russia. If all of Western Europe had gone over to Communism and formed part of one Soviet Union, the resources of the united state would have been pooled. But the international revolution was slow in coming. And Lenin saw the handwriting on the wall and frantically pushed this electrification plan.

With the aid of the machine, the tractor, the peasantry, like the urban labor, was to become a homogeneous proletariat, toiling in the employ of the state, ruled by a political power which acts as trustee of its material and spiritual welfare and which promises to lead it to the ultimate haven—a universal high standard of living.

If privation is the order of the day, if oppression and terror are in vogue, if sacrifices are demanded or extracted by the mailed fist of the dictatorship, it is all done not in the name of private property, but in the name of tomorrow. Tomorrow will bring socialism. Tomorrow will bring material happiness. First there was the naive dream of "loot and loot"—dividing the riches of the capitalists and the landlords. Would not such a division make every pauper prosperous and every person well provided for? Then, when all these riches had been expropriated, divided, wasted, and need stared in the face more ominously than ever, the machine was held up as a bait. Was not America an example of machine-made wealth? Why not the same in Russia? Let the machine produce wealth. It will yield more than enough to go around.

The abstruse tomes of the *Five-Year Plan* of the technologists did not quite provide for such a munificence of gifts. But the political coaches of the Five-Year Plan opened limitless prospects for the populace. "What have we not got!" This phrase of Stalin's like that of his predecessor Lenin about looting the looters was enough to fire the imagination of hundreds of thousands of Communist comrades and especially youths. The Five-Year Plan became a religion, a mystical aberration not identified with its original postulates. It became a pro-

motion campaign, a military adventure in terminology and tactics. Not only did it assume that character in Russia, but it overflowed into the rest of the world and was imbibed deeply by those whose will to revolution had failed to keep step with their rational equipment. In the meantime, the test of the Plan itself—industrialization—had gone unobserved.

According to that test, Russia has not advanced an inch towards the goal of the Five-Year Plan, after three years in the race with the leading industrial nations. That goal, the goal of all industrial progress, is urbanization. Today the Soviet Union is exactly as much of an agricultural country as it was three years ago before the Stalin drive.

In spite of the high-pressure campaigns, in spite of the increase in the number of industrial workers in Russia, her population remains over 83% agricultural. In the United States the agricultural population has gradually declined to 25%.

The Russian birth-rate adds annually nearly 3 million to the country's inhabitants, swelling the primitive village horde. The rate of industrialization has been slower than the rate of the growth of the village. The plan of the Kremlin to create a modern urban civilization is hourly, daily, frustrated by the natural, planless phenomena of life. For every new factory worker, developed at great

expense and privation, five new peasants grow up on the land.

Despite the collectivization movement, the introduction of large numbers of tractors and the other modern means of farming applied to Russian agriculture under the Five-Year Plan, the peasant produces less wheat and corn today than before the war. The pre-war production of grain in Russia amounted to 1,477 pounds per capita. In the year of 1930, when the crops were particularly favorable, the per capita production of grain was only 1,180 pounds, or one-fifth below the pre-revolutionary standard. In 1931, the norm was even far lower. Yet 1930 was the "dumping" year when the Soviet Government exported large quantities of grain abroad. That, however, was no new event in the life of the Russian people. In 1897, a year of famine, Russia exported huge quantities. In fact, Russia had always been exporting grain while her population starved, to countries which had a much higher per capita production of grain themselves but which usually imported additional supplies. The Bolshevist dictatorship simply devised means of extorting from the peasantry supplies of food even though it deprived the population of a fifth of its meager bread ration and lowered the standard of living of the people to new depths.

The political maneuvers incidental to the launch-

ing of the collectivization movement and the industrialization campaign dazed the world with their bizarre character, obscuring the significant and vital effects of the Five-Year Plan upon the country. The construction initiated by the Kremlin politicians attracted photographers and movie operators from all over the world and made handsome modernistic illustrations when outlined against the background of the steppe, the camel, and the fur-clad peasant. But modern industry was not made for photographers to analyze and comprehend. The industrial enterprises reared from the ground with dizzying "American" speed entranced the observers and inspired them with the belief that a new world or menace was rising on the Volga.

But brief as the period of planning in Russia has been, it already holds portentous lessons for the blind believer. It was one of Lenin's pet electrification schemes to erect a powerful electrical station in Central Muscovy, in Shatura. The planning and building of that station was a great event eight years ago. It occupied many front pages in the newspapers, was the subject of numerous reports and books, all happened before the heyday of the Five-Year Plan. What has happened to Shatura, once advertised as a milestone in the electrification program? "You all know how, in its time, we built Shatura," declared the Soviet Commissar of Agri-



culture, Yakovlev, at the Sixteenth Congress of the Communist Party in 1930. "Its walls will last for many decades longer than the station itself will exist." This is an isolated admission, but it is far from an isolated case.

If Russia had unlimited power resources, if she had all the makings of a great transportation system, what would be her chances of attaining in the nearest future a level of technique and a standard of living comparable to that of the United States? The base from which peasant Russia is being driven, by forced marches, is such as to permit no comparisons with Western countries. And any talk of a contest between America and Russia, such as Moscow indulges in, is bound to remain a farce.

The area of Russia is three times that of the United States. The railway mileage of the Soviet Union is about one-fifth of that of America. The total tonnage of watercraft owned by the United States is 10.3 million, as against four-fifths of a million in the Soviet Union.

The per capita production of coal in America is 11 times that of Russia, of pig iron 11 times, of steel 10 times, of electricity 16 times.

The national income per capita in the Soviet Union is \$75 a year, as against \$560 in the United States.

Upon the successful completion of the Five-Year

Plan, Russia should have 20,000 miles of surfaced highways. The United States has about 700,000 miles of paved roads. In 1931 alone, a year of severe economic crisis, 50,000 miles of roads were constructed in America at a cost of over a billion dollars. This mileage is three times the amount provided for by the Five-Year Plan but not yet built.

The merchant marine of the Soviet Union constitutes one-half of one per cent of the world tonnage; that of the United States, 22.5 per cent. There are 30,000 automobiles in Russia as against 26 million in America.

The total useful fuel energy produced annually in the two countries, according to the *Five-Year Plan*, is 40 against 536. The combined power of man, draught animals, fuel and water power produced in the Soviet Union is 58 against 573.6 in the United States, in terms of billion kilowatt hours.

"According to our calculations," reveals the *Five-Year Plan*, "the productivity of our agricultural labor is approximately five times lower than that of our industrial labor. In the United States agriculture is twice as productive as in the Soviet Union; industry three and one-half times as productive.

"The productivity of a miner in the United States is six times that of one in the Soviet Union."

In 1928, the railroads of the United States car-

ried a total freight tonnage of 1 billion 275 million tons; at the end of the Five-Year Plan the annual tonnage of the Russian railways should reach 281 million tons.

The savings banks of Russia have deposits totaling a quarter of a billion dollars, as against 30 billion in the United States.

The Soviet Union has 300 thousand telephone subscribers, as against 20 million in America. The Soviet Union handles annually about 800 million pieces of mail, including printed matter, or 5 per capita, as compared with 120 per capita in Germany, 145 in England.

As a further index to the civilizational standard of Russia, it is significant that that country handles about 25 million telegrams a year, or one-eighth of a message per inhabitant, which is about half of Russia's pre-war telegraph service. The United States handles annually about 225 million telegrams.

The basic standards of measuring a people's cultural level and material welfare remain housing, food and clothes, all the three of especial import in the rigid climate prevailing in the greater part of the Soviet Union.

If we apply the figures furnished by the *Five-Year Plan* in regard to these three factors alone, both as to the existing and planned levels, the

standard of living of the Russian people and their corresponding ability to push forward rapidly to that of the most advanced nations is revealed most strikingly.

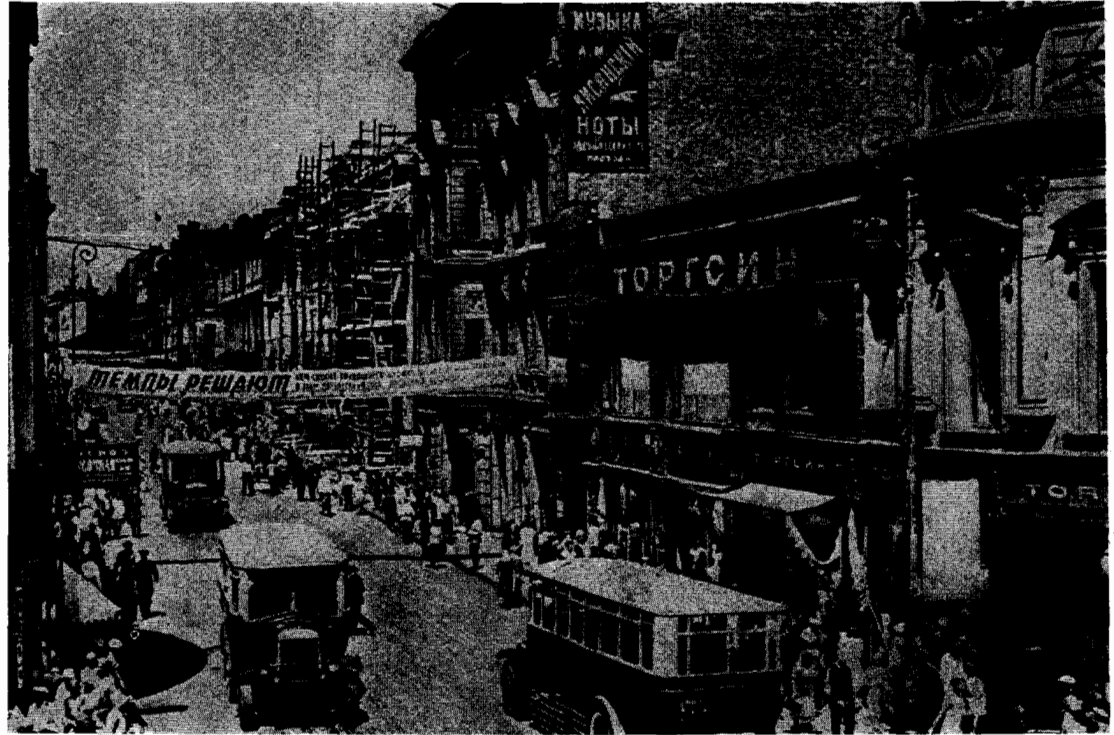
In 1927-28, the urban population of Russia, comprising as it does its entire industrial segment, occupied living space which averaged 61 square feet per person. Since home ownership has been abolished and all the city dwellers are tenants either of the municipalities or the state, the available housing area in the cities and towns has been continuously on the decrease, and the additional construction never suffices for the increase in population due to birth alone. It should be emphasized that living space includes kitchens. On this basis every couple had not more than a room of 10 by 12 which served as living room, bedroom, and kitchen. Nearly 20,000,000 people forming the urban population of the country live in this manner.

But this average does not convey the full picture of the housing conditions of the bulwark of the industrialization drive, the workers. According to the *Five-Year Plan*, the labor army of the nation averaged 52 square feet per soul, the industrial workers only 50 square feet, and the miners 40 square feet per capita. The miners, therefore, had to contend with a room 5 by 8. A miner's family of 5 would average a hovel containing altogether



This tractor squad is at work on the steppes of Southern Russia. By means of forced collectivization of the peasantry and the introduction of modern agricultural machinery, the Bolshevist dictatorship had expected to produce bumper crops. The nature of the Russian soil, however, demands individual, strip farming. The crop of 1931 was far below the expectations of Stalin's *Five-Year Plan* estimates. The hunger in the cities increased; the yield of grain in the country per capita declined. The shortage of food in the spring of 1932 compelled Stalin to retreat and proclaim free trading for the peasants.

Torgsin, the government department store for foreigners, stands on the main business street of Moscow. Due to the catastrophic depreciation of the Soviet currency, Russia is the only country in the world in which the government accepts foreign exchange exclusively and refuses its own currency for goods. Thus Soviet currency is useless for the purchase of food-



stuffs and other goods on sale at the Torgsin stores. Only foreigners and the few Russians who receive dollars and pounds from their relatives abroad are able to buy necessities from these government shops which are well supplied. The Russian workers, holding food cards, are compelled to wait in line at other government shops where Russian currency is accepted but the shelves of which are usually empty.

living space equivalent to a room a little over 13 by 15 feet.

Nearly two-thirds of the entire urban population had living space below 64 square feet per person. Three-fourths of all the industrial workers averaged so-called homes with accommodations of 37 square feet per capita, or a chamber of a little more than 4 by 9. 21% of the whole population had less than 32 square feet per person. In other words, more than a fifth of the urban inhabitants, mainly those concentrated in the bigger centers, had each rooming quarters equal to 5½ by 6 feet.

The *Five-Year Plan*, fully aware of the situation, outlines a program of home-building, but supplements it with the following observation:

“To build additional space sufficient to furnish an average of one room per person, including the kitchen, in place of the present half-room.” This is declared to be the desirable end. Obviously a condition which makes every kitchen in the cities and towns a living room, and a crowded one at that, is not calculated to bring Russia nearer to the level of the advanced countries. But the *Plan* adds:

“Such a scope of building would demand expenditures which are beyond our reach for the time being and would probably encounter a shortage of building material.”

It is superfluous to draw any comparisons be-

tween the housing problem in Russia and in Western countries. Possibly China or India might contain data which approach this unbelievable standard of home accommodations. But then neither China nor India is spending hundreds and hundreds of millions of dollars on chemical, electrical and metallurgical plants.

The food standard of Russia is equally low. Bread has always been the main victual of the country. In 1927-28, the consumption of bread among the urban population per person a day was one and one-tenth pounds; among the rural it was one and a third pounds. The *Five-Year Plan* provides for no increase in the consumption of bread although it is the main article of sustenance for the people.

The consumption of meat per person daily in Russia was over a third of a pound in the cities and less than a seventh of a pound in the villages. The fact should be borne in mind that more than four-fifths of the country's population is rural. The meat fare of a nation has a direct bearing upon its productivity. Man power is beef power, and the fact that a Russian miner produces six times as little as an American miner and that a Russian peasant working twice as long produces one-half as much as an American farmer is most pertinent in the development of an industrial order.



Considering the agricultural nature of Russia, its consumption of eggs and dairy products is a revelation of its living standard. The average urban inhabitant had approximately seven eggs a month, or a little over one egg per four days. The rural population, which produced this precious article, consumed annually on a per capita basis less than 50 eggs, or 4 a month. So great was the hunger of the village for such necessities as salt, sugar, and matches that the peasants deprived themselves of eggs in order to save means of exchange. The *Five-Year Plan*, when fulfilled, would provide every city dweller with one egg for two days! In the current fourth year of the five-year period eggs have virtually vanished from the city markets in Russia.

Russia manufactured in 1928 enough shoes and boots to provide every person with two-fifths of a pair per year, or at the rate of one pair for two and a half years. The *Five-Year Plan* provided for an increase in footwear at the end of the period sufficient to give every person three-quarters of a pair per year, or at the rate of one pair for a year and four months.

The production of cloth and woolen goods in the country amounted to half a yard per person, and the manufacture of cotton goods of every description amounted to about 18 yards per person, all on an annual basis. Such is the fund of textile

goods to clothe the population, from underwear to millinery, from outer garments to handkerchiefs and shawls.

Such is the level of civilization of the country which Stalin started at breakneck speed on its frenzied march to the pinnacle of iron and steel and electricity, on its "historic" contest with . . . America!

Modern technology, to create a higher standard of living, demands first of all a certain minimum standard to begin with. Industrial progress is evolutionary, it is a gradual climb from one level to another, stage by stage, with the aid of accumulating capital and knowledge. A standard of living cannot be created by the magic wand even of a dictatorship. A standard of living grows with the natural development of a country's resources. Battlecries and political persecution and coaxing cannot raise a country from the depths of poverty. A machine cannot be commanded to create wealth where there is destitution. In the hands of the Bolshevik dictatorship, the Five-Year Plan became not a creative but a destructive weapon, and instead of raising the standard of living of the people, it subjected them to increased privation and chronic starvation.

**S**TALIN's conduct of the Five-Year Plan by a series of fitful drives rather than a single coordinated movement has already set Russia's national economy back at least twenty years.

The balance sheet of the terrorist campaign to industrialize Russia, at the end of the first three years, shows on the debit side *nine definite failures* and on the credit side *three questionable major achievements*.

*First*, on the debit side, the destruction of livestock by the peasants on a scale unprecedented in history. While the Kremlin bulletins were announcing glamorous victories on the collectivization front, claiming that millions of agriculturists were voluntarily joining the collective farms, these "volunteers" preferred to execute a mammoth slaughter of their own cattle rather than turn them over to the Soviet Organizations.

According to the official figures of the *Five-Year*

*Plan*, the Soviet Union had in 1928 over 230 million head of horned cattle, sheep and pigs.

Then came Stalin's agrarian revolution. There were desultory reports of the destruction of animal husbandry in the villages. But it was not until recently that it was possible to secure evidence as to the price of the collectivization drive. At the close of 1930, according to Grinko, one of Stalin's chief executives, there were left in Russia a little less than 153 million head of live stock.

The peasantry destroyed within eighteen months nearly 78 million domestic animals. Almost one third of the entire live stock of the nation was butchered by the population. Such a carnage has never been recorded anywhere. When one considers that even in 1928 Russia's live stock was still less than it was in 1916, that it took ten years of slow reconstruction for the country to build up its terribly depleted animal husbandry, that the latter formed the most precious possession of the impoverished peasant, one can visualize the despair responsible for the nation-wide slaughter.

But great as the canvas of that slaughter is, still awaiting its Tolstoy to unfold it in human terms, it is the destruction of national wealth which it entailed that bears witness to the cost of the Five-Year Plan. In any agricultural country, animal husbandry constitutes a basic asset. Russia's na-

tional wealth being among the lowest in the world, the annihilation of one billion and a half dollars worth of primary wealth such as is represented by live stock is a national catastrophe. It will take twenty years of peaceful progress for the Russian peasantry to regain its husbandry of 1928.

*Second* the food-card system which threw Russia back to the distressing days of intervention, the blockade, and the famine. The *Five-Year Plan* did not provide for any lowering of the standard of living, for the re-introduction of the rationing system abandoned by Lenin in 1921 after the conclusion of peace with Poland, for the bread-card, milk-card, meat-card, and all the other cards for the purchase of elementary necessities.

“The execution of the industrialization plan,” declares the original *Five-Year Plan*, “will demand sacrifices from the workers. However, we will be able to furnish the entire working class ever increasing goods for their consumption.”

There is nothing in the *Five-Year Plan* about bread-lines, about vegetable-lines. There is nothing in that master-work about food parcels from America. There is nothing about a shortage of meat, a lack of soap, an absence of potatoes from the markets and stores. On the contrary, the *Five-Year Plan* outlined a gradual rise in the supply of commodities to the population.

As soon as Stalin took over command of the Five-Year Plan, an alarming shortage of necessities appeared all over Russia. Beginning with the second year of the campaign, a rationing system was introduced which gradually extended to every vital article of consumption. The people of Russia began to hunger once more, after a lapse of seven years of comparative ease under the New Economic Policy (NEP). Visitors to the Soviet Union, witnessing the endless queues of haggard and shabby people waiting for a pound of produce or a bit of cloth, were under the impression that that condition had existed throughout the Revolution. But that is contrary to fact. To the famished millions today, the period of 1921-28 seems like a lost paradise. To these millions, the Five-Year Plan means certain agony today for promised plenty tomorrow.

There is nothing in the *Five-Year Plan* about the struggle for bread. There is nothing to Stalin's application of it but a struggle for bread. The Soviet press has for the last year and a half waged that campaign without let-up. As late as November 18, 1931, the Moscow "Pravda," one of the official organs of the Bolshevik party, proclaiming the necessity of "*Mobilizing the masses in the struggle for bread.*"

What a commentary on the success of the Five-

**Year Plan!** The cardinal failure of that plan today is that it imposed a shortage of food upon the population, that it deprived the latter of the few gains won during the preceding decade, that it made hundreds of thousands of Russians more or less dependent upon food parcels sent from abroad, principally the United States, and that it utterly failed to increase the supply of commodities to the masses as they had been solemnly assured.

*Third*, the inflation of currency for the second time since the Revolution. The *Five-Year Plan* did not envisage the collapse of the gold currency established with such pains in 1923. The Stalin drive quickly upset the greatest financial victory ever achieved by the Soviet Government. The ruble is officially quoted by the State Bank in Moscow at fifty-one cents. Actually it is worth about two cents. One can surreptitiously get 20 or 30 or 40 rubles for a dollar. The purchasing power of the ruble has so declined that a pound of butter will fetch as much as five rubles; an ordinary cake of soap a similar price. Hence, the average worker's pay of seventy rubles a month, with the existing scarcity of goods in the State chain stores where the prices are fixed on a gold standard, condemns him and his family to semi-starvation. Hence, the recently advertised raise in workers' wages. When currency loses its buying power, such raises become inev-

itable. In turn they keep the government printing presses busy, as exemplified strikingly in Germany during the great post-war inflation. The Russian worker would rather receive \$7 a week in gold currency than three times that amount in worthless paper.

*Fourth*, the mobility of labor which the *Five-Year Plan* did not anticipate. In his famous pronunciamento last summer, Stalin complained of the increasing fluidity of labor. He declared: "In any event, you will find few enterprises where the personnel of the workers did not change in the course of six months or even three months at least from 30 to 40%."

What does it mean? Why do the workers of the Soviet Union, that labor paradise, migrate continuously? Why does Stalin have to resort to special measures to keep them attached to their lathes?

"The growth of the mobility of labor," answers Trotsky in a recent article, "signifies that in the conditions of the third year of the Five-Year Plan the working masses do not feel quite happy. . . . The inflow of labor from the villages to the cities has ceased not because the peasantry has achieved ideal prosperity, but because *the condition of the workers*—this should be stated honestly, clearly,



openly—*has grown extraordinarily worse in recent months.*” And Trotsky adds:

“One should not be deceived: the physical movement of the workers may portend their political movement.”

*Fifth*, the employment crisis and the mysterious shortage of labor in agricultural, teeming Russia. The *Five-Year Plan*, cognizant of the tremendous surplus population in the villages, foresaw, with the partial mechanization of agriculture, a huge horde of peasants seeking and not finding employment in the cities. Behold a miracle! The reports from Russia speak not only of universal employment, but of an actual scarcity of labor. How did it all come to pass?

There are at least 15 million unnecessary laborers in the Russian villages, according to the leading Soviet economists. The Russian village was ever a reservoir of surplus labor which found no application. The problem of how to dispose of this increasing fund of man-power always worried Russian thinkers, including the framers of the *Five-Year Plan*.

Suddenly, the problem is solved and the world is informed that there is no unemployment in Russia! There is no unemployment in the Russian cities, because of the flight of hungry millions back to the villages, because the collective farms fath-

ered by the government lured hundreds of thousands where no bread hunt was necessary. The official Soviet investigations show that 50% of the labor in the collectives remains unexploited. In other words, there are twice as many toilers on the land as required! But there is no way of getting them out.

*Sixth*, the collectivization movement, in spite of its imposing statistical gains, has not eradicated the instinct of private property in the peasant. In spite of the increased acreage, in spite of the employment of tens of thousands of tractors, the Soviet Union has no large quantities of grain for export. The Kremlin has found as yet no way of making the members of the collective farms part with their grain. Due to the migration of the population back to the land, the villages have been holding back their agricultural supplies to satisfy their own needs first. The entire collectivization movement may yet prove a boomerang. The Soviet press is full of evidence revealing that the large masses of peasantry regard the produce of their labor as their own. So long as that produce consists largely of bread, even the dictatorship is powerless to take it away from the famished people.

*Seventh*, the collapse of the transportation system for which the *Five-Year Plan* was unprepared. The Commissar of Railways, in his report last May

to the State Planning Commission, gave the following description of the Soviet traffic system:

"The technical condition of railroad transport is terrible. . . . The condition of the roadbed is bad . . . there are large numbers of rotten ties . . . the rails are light and worn-out . . . the locomotives and cars are antiquated, inadequate, and of low capacity."

"The means of transportation has become a serious obstacle to the development of the socialist economy of our country," writes the official organ of the State Planning Commission. "At the mines there are large quantities of ore lying about; the surface is covered with dumps of coal that cannot be moved; agricultural produce, especially grain, lies at railroad stations in the open; manufactured goods are accumulated at factories; oil cannot be transported from the fields in needed quantities; lumber is piled up; building materials are waiting shipment, etc."

Nothing proves so strongly the planlessness of Stalin's Five-Year Plan as the strangulation of all economic arteries by the breakdown of the transportation system which should be the elementary prerequisite for the planning of an industrial order.

*Eighth*, the housing crisis which is continually growing more acute. Moscow, with its population

of two and one-half million, overcrowded to incredible limits, had a building program in 1931 of 235 houses! According to the "Pravda" of December 3, 1931, only 80 of these were completed by November 1. "Of the 282 frame buildings planned, not one has been finished. Thirty-seven of the projected buildings have not even been started."

Leningrad, with a population of two million, had a building program for 1931 of 24 million rubles. "Actually, by November 1, the completed building operations totaled about 11 million rubles. . . . During the first ten months of the current year the building departments have turned over for occupancy 1,643 apartments, with an area of 940,000 square feet," states the "Pravda."

Eyewitnesses returning from Moscow or Leningrad may talk glowingly of the great building operations going on there. But the Soviet evidence conclusively shows that the two capitals, harboring nearly one-fourth the total urban population of the country, were scheduled to carry out a home-building program (in the third and decisive year of the Five-Year Plan) equal to the expansion of an American city of the size of San Francisco or Pittsburgh (in the worst year of a great national depression). At that, both Moscow and Leningrad fell far short of the plan! According to the "Prav-

da" of the same date, a similar condition prevails in all the other centers of the country.

*Ninth*, the defective quality of production. The world has been regaled with innumerable statistical reports of tremendous increases in the quantity of manufactured goods produced under the Five-Year Plan. Such statistics are impressive. Less dramatic may be the fact that the article in question is of such quality as to be perishable in a short time and therefore highly expensive. "It suffices to pick up any of our papers to become convinced that in this regard the situation is catastrophic," writes Christian Rakovsky, once President of the Ukrainian Soviet Republic, then Soviet Ambassador to France, and now an exile in Siberia. "Neither agitation nor administrative measures, nor measures of a legislative character, have been able to put a halt to the process of the deterioration of the quality of production. The facts are sufficiently well known so that I will confine myself to a few of the most obvious examples.

"In the following metallurgical factories, typical enterprises, the amount of defective goods was: Djerjinsky Factory (wrought iron plates), 32%; Djerjinsky and Petrovsky Factory (steel parts), 40%; Verkhnye-Turinsk Factory (steel parts), 100%; Lapayevsky Factory (sheet metal), 40%;

Nadiejdinsky Factory (high quality steel), 30%;  
Marti Factory (steel), 32%.

“This list can, of course, be increased many times. It is a matter, therefore, not of single defects, but of a whole *system of producing defective goods*.

“The percentage of slate in the production of coal increased sharply, reaching in some instances as much as 18 per cent. Only 20 per cent of the bricks produced could stand up under the established methods of loading. Matters are still worse in light industries, in which textiles broke all records. According to the figures often quoted, the average percentage of defective goods in the different trusts was 50 per cent. The press also quotes the figures of the losses in millions of rubles, connected with this drop in quality. It is characteristic that the new factories do not remain behind in the percentages of defective goods. The textile factory of the Melange Syndicate, which has been recently constructed, produced in April, 93.98 per cent (1) and in May 92.37 per cent defective goods. According to the figures of the People’s Commissariat of Workers’ and Peasants’ Inspection, the percentage of defective goods in the production of rubber reaches 14 per cent, of shoes 13 per cent. There is literally not a single branch of industry where the problem of quality is not a

very painful one, and there is almost not a single branch where the current year did not bring a deterioration of quality. It is clear, in connection with this, that where the produce has to go through several stages in the process of production or through several branches of industry, the poor quality in one branch is multiplied by the poor quality in all the other branches. . . . The deterioration of the quality of production makes the quantitative indices more or less fictitious. Even Kuibishev was compelled to admit this at a session of the Supreme Economic Council (of which he is president), where he declared: "The figures of the tremendous growth of industry *become relative* if we take into consideration the qualitative changes." *Industrialization* of July 18 expresses itself still more emphatically, when it declares that under such conditions 'all our quantitative achievements would not amount to a farthing'".

Such are the main failures of the Five-Year Plan where it is possible to check by performance.

On the credit side are certain achievements still in an experimental stage. *First*, the tremendous reduction in illiteracy and the doubling of the schooling facilities of the nation. But the educational value of the Soviet schools which are nothing but "Red" Jesuitical seminaries that falsify past and current history, inculcate hatred, and shut the

minds of the students off from the live streams of human civilization, is of doubtful character.

*Second*, the modernization of primitive agriculture by the introduction of the tractor and intensive methods of farming. This is a revolutionary change in the life of the peasantry. It is bound to exert a lasting influence upon the future of Russia and her eventual role in the world. But its success from the Soviet standpoint still remains to be demonstrated, and will be definitely established only then when bread-cards are discontinued, when food becomes plentiful in the country, and when the Soviet Government is able to reap its surplus harvest for export without subjecting its population to untold wretchedness.

*Third*, the erection of a large number of metallurgical and chemical and other industrial plants, representing an investment of billions of dollars. Most of these plants will remain. Whether the Soviet Government or some other powers will control them the future will answer. As far as the Five-Year Plan is concerned, the success of these plants will be demonstrated only when they commence operation, when they start mass production and do so on a profit basis and not with a government subsidy, when the goods they produce reach the consumers, when the famine of commodities ceases in the country, when the standard of living



of the people begins to rise; in brief, when they prove not merely industrial pyramids but living organisms supplying a living and growing demand.

For the present, the entire gigantic industrialization effort still awaits its justification by all the rules of sound economics. As for Stalin's grandiose experiment, whatever the verdict of history may be, it is a luxury which the harassed people of Russia did not court and which they could ill afford after a decade and a half of unexampled privation.

**T**HE Five-Year Plan, in its simplest definition, is a means of attaining the millennium with the aid of the machine. Lenin, the leader of a backward peasant country in revolution, beheld the marvelous machine and hastened to adopt it as the savior of society. In the environment of Russia the machine acquired almost divine powers in the eyes of the masses. It opened the high road to abundance, universal prosperity, and happiness. How was one to convert a primitive agricultural population into a modern industrial nation? How was poverty to be replaced by wealth? How was a new world to be evolved from one in a primeval state? By means of the machine, of course! Let one million machines be installed, let one hundred million mechanical horse-power be called into being and they will yield magic crops of goods, they

This chapter, substantially in the same form, appeared in Scribner's Magazine, and the author is indebted to the editor of that publication for permission to reprint it here.

will shower blessings upon famine-ridden humanity. A grand vision, calculated to capture the hearts of any populace; a vision as blinding as that of Moses, Christ, and Mohammed; a vision sufficient to imbue a large block of mankind with a new religious frenzy. But how does one transform it into reality? What are the precise methods of accomplishing the various synonyms of the Five-Year Plan, such as electrification, tractorization, mechanization, industrialization?

The ingredients needed for the magical transformation of society would inevitably be as simple as the conception itself. Given a monolithic state power, modern machinery, a supply of labor, a source of capital, a certain output of trained technicians—and you have all the elements for the creation of a new and happy industrial society. Such is the rudimentary theory of the Five-Year Plan. Government, it is held, is effective only when it is a dictatorship, when it is single-tracked, when it avowedly represents a particular class. Government is then divorced from human failings, it is purged of politics, of jealousies, of rivalries. A dictatorship is the perfect instrument for the rebuilding of the world.

As to the machine, it is a complete and sharp weapon, a definite fortress. It stands in social science for the means of production. All that is re-

quired is to capture it, to harness it to the right arm. The machine can be controlled, can be operated without regard to location, to environment, to age, so long as the operating hands are there. Labor is a well-defined article. Labor has to be told that it has the power; it has to be fed, sheltered, provided with entertainment, and, above all, organized. Capital is a well-known quantity. Capital is independent of labor. Capital is not wealth, but money. Its value is commensurate to its size. Produce tons of gold, mine carloads of diamonds, and you have capital. As to technical knowledge, it is nothing but the engineering profession. This profession is so far nothing but a by-product of capitalism, contaminated with its decayed culture. How does one master technical knowledge? Simply by impressing into service the engineering profession. The engineers must be terrorized, watched, strapped to the plants, and commanded to perform certain tasks for which they are indispensable.

Given all these elements, the economics of a new world order become a matter of forceful mechanical mixing and driving. Such is the chemistry of the Five-Year Plan. You throw all the ingredients into a melting-pot. You supervise the brew with a keen eye, you stir it every now and then with a mighty stick, and in time there will

spring upon the scene a new society, a new civilization, lusty, fat, victorious.

Trotsky has illustrated this view of the Five-Year Plan in his description of one of its prime phases—the industrialization of agriculture—when he wrote: “From peasant nags and wooden plows, however combined, you cannot create large-scale farming any more than a combination of fishermen’s rowboats can make a steamer. . . . The socialist reconstruction of farming we view as a matter of decades.” This applies to the entire Bolshevik experiment in economics. You cannot create a new world with a dictatorial whip by importing American machinery, American engineers, by exporting below cost the capital resources of the country, such as grain and oil that are badly needed at home. No life will spring into being under a dead hand, however vigorous its grip may be.

Dictatorship is essentially a primitive form of government. It was Stalin who proclaimed that the premises, the foundations of the Bolshevik revolution, are located in the dictatorship. Yet it is one of the earliest stages of the development of human society. Dictatorship is an outgrowth of and is adapted for backward countries and peoples. Its processes of thought and action are absurdly sim-

ple. It is a sledge hammer made by domestic means. Its application to modern civilization is like the application of a tool of the Stone Age to a finely constructed watch.

The dictatorship of the proletariat as a political theory grew up in the pre-power age. It was a natural development of the age in which the toiler mastered mechanical levers and attached them to his muscles in order to secure easier conditions of work and a higher yield of goods. The modern machine is fed not on the energy of the human arm but on that of the remote bowels of the earth. The discovery of electricity made the old economic theories obsolescent and the traditional revolutionary movements archaic. Socialism, combining distinct religious elements with economic theories, was quick to adopt the age of power and to hitch electricity to its chariot.

The idea of planning was not imbedded in socialism. Planning was not in any manner related to the dictatorship of the proletariat which preceded it as a theory by a generation or two. It was only when the vistas of boundless mechanical power at the command of man began to gleam before the socialist thinkers at the close of the Nineteenth Century that planning came upon the scene as a magic way of liberating the workers from their servitude. Indeed, if ten mechanical men could aid

every inhabitant of a given country, then the millennium was at hand.

The Bolshevist experiment focused the world's attention upon the gulf separating politics and economics. The Five-Year Plan offers an exceptional test of the relationship of power resources and their technological utilization to outmoded political theories and methods. The Five-Year Plan is endowed with a dual being. Its nerves are those of natural resources converted into mechanical energy. Its hands are those of traditional politics which are trained in the primitive school of mastering and conquering and dominating your fellow beings. While the rule of politics lasts, the fund of power and technology is dumb. When the natural resources begin to speak, the political dictatorship will lose its voice.

The Bolshevist dictatorship is steeped in the heritage of the antediluvian period of the machine age. Its philosophy is that of the school of thought which grew out of the Manchester textile factories of four generations ago. Its intellectual baggage is that of the rebellious weavers on the threshold of the industrial era. Its social doctrine has remained static for a century while the machine grew too fast for its newer significance to be fully analyzed and realized. The machine has brought in its train an infinite series of social values which call for new

definitions, new appraisals. The Bolshevist dictatorship is oblivious of these; its mind is closed to any revision of views; the blade of its theoretical weapon is old and rusty.

The Bolsheviks are famous for their courage, their dauntlessness. "There is nothing we Bolsheviks cannot achieve," Stalin has declared, only paraphrasing what Lenin had said many times before. How fitting such words are on the lips of a dictatorship, and how primitive! All that is necessary is to have a concentrated political power imbued with superconfidence, impatient of any contrary opinion, inspired with zeal, infused with driving power. Such a force is sufficient, to be sure, to give a start to almost anything, even as a straining of the muscle will drive a ball high in the air or far toward the horizon. But planning presupposes not only an objective, not only a gun that is capable of reaching the objective, but also certain knowledge of higher mathematics. The dictatorship gave Russia an immense push with its Five-Year Plan, but where Russia has been pushed, where the projectile will land, where it will explode, is another matter.

For three years now the merchant vessels plying from the American shores to the Russian waters have been transporting precious cargoes of machinery. Emissaries from Moscow have been



"studying" the marvels of Ford's empires, selecting the choicest and most expensive wares, and carrying them back home to the steppes along the Volga and the slopes of the Ural Mountains. Nothing was too modern, nothing was too good, for these backwoodsmen. That grand vision seemed to become a reality upon the inspection of a Detroit or Akron industrial giant by the Kremlin buyers. They would assemble the wonderful machinery, erect it in their pauperized land, and riches would flow automatically into the eager hands of the waiting hordes. They would seize the machine, they would hitch it to their political system and brawny arms, and they would be in possession of the golden calf. For the machine would function indefinitely, indefatigably, regardless of the number of shifts handling it, and a new calendar that gave it no day of rest. Labor seemed plentiful, machines were costly and relatively few.

But the modern machine is not to be identified with that of the days of the weavers. The modern machine lives off ten thousand hidden arteries which feed it in a manner beyond the conception of a Volga peasant or a Chinese coolie. It took a century of the most intensive cultural development, of the most bewildering social growth, to produce the "belt" or conveyor system, with its superhuman precision, its complicated and in-

satiabile demands. The conveyor, as every expert knows, is the highest expression, the climax of the most complex civilization man has ever produced. Take that conveyor away from Michigan or Ohio, move it to the Amazon River, and it will balk. It will go on strike and upset all calculations. The modern machine is an organic growth, it belongs to its surroundings, like the soil on which it is planted. The machine has grown with the man in charge of it and the man has grown with the machine that he tends. A human being can drive another human being to incredible lengths. No one yet knows the endurance possibilities of man; endurance records are being broken from day to day. But a human being is powerless to drive a machine the way he drives himself or a fellow man. The modern machine knows how to rebel effectively and better than man does.

Labor, too, has its defined as well as undefined laws. To old-fashioned capitalism labor was nothing but a commodity. Marxism was built on this. Yet Bolshevism in practice applies that very viewpoint toward labor. True, labor is proclaimed as the keystone of the future society. It is told again and again that the government functions for the ultimate good of the toilers. But labor has immediate interests as well as remote ones. It finds itself on the string of a ruling class, the objectives

of which may be promising indeed, but the functions of which are like those of any other government. Consequently, labor in Soviet Russia, all theory notwithstanding, finds itself treated as a commodity. One state organ, known as a certain trust or syndicate, makes a contract for wages and working hours with another state organ which happens to be known as a trade union. For the Soviet trade unions are admittedly "stateized." Workers are not permitted to strike, on the theory that they work for a workers' government. Labor is in effect a disciplined army. Every now and then there are mobilizations, every now and then labor contingents are shifted from one front to the other.

The Bolshevik dictatorship never anticipated a labor shortage when it launched its Five-Year Plan. Was there not an ample supply on hand? Did not the birthrate yield a natural population increase of three to four million annually? Yet today the labor question is confounding the dictatorial minds. Labor is human, and its control by a political oligarchy should presumably be far easier than that of the machine. But even humanity is inventive. Hence, the extreme fluidity of labor in the Soviet Union, the constant drifting of workers from one plant to another. Hence, the problem of the appalling labor "turnover" in the major industries where during a period of six months this

mobility has been reaching 40 to 50 per cent. You can drive labor to the machine, you can lure the worker to the job, but you cannot make him produce according to your plans unless the surrounding conditions stimulate him to such production. Hence, the employment of five men where one German or American worker would do. Hence, the insufficiency of ten million industrial workers in a country which, with all its plants and projects, will stand no comparison with the industrial status of the State of Pennsylvania alone.

The machine will balk, but it cannot escape. Man will escape. Labor is after all an aggregation of human beings, and even a strong-arm dictatorship is not strong enough to cope successfully with the human urge to flee from the difficult present, to go in search for a better life elsewhere, to exchange the monotony of the conveyor for the familiar rhythm of the shovel and the axe, to strain against the yoke of statutes and commands, even if these be devised for the ultimate welfare of the victims themselves. Hence, the drastic measures promulgated by the Soviet Government or the stoppage of labor mobility, for the attachment of the worker to his lathe. Hence, punitive measures on the one hand and attempts at generosity in distributing food rations, on the other. But labor, especially Russian labor, fresh from the fields, just

come from the plow and the horse, continues to play havoc with charts, blueprints, manifestoes and schedules. It takes an accumulated tradition of generations to produce a modern industrial worker, one in whose veins courses the rhythm of the machine. The muscle of the Russian peasant is like that of a dray-horse led into racing grounds and made to run alongside the finest thoroughbreds of the turf. No statistician, no Marxist planner, can calculate the pace of raw muscle under strain, and no dictatorship can budget such a rate of production.

The industrial worker of the West is a meat-eating being. The Russian workers live on soggy bread and cucumbers. The human energy introduced into the modern machine is largely beef energy. It is inconceivable that a population that had for centuries absorbed vodka, thrived on buttermilk and cottage cheese, could have the stamina, the endurance, to build and develop an intensive industrial civilization. Of course, the Russian worker would gladly turn to the consumption of beef. But he gets less of it today than two decades ago. The calories consumed by the average Russian are sufficient for one who drives a horse and performs similar manual labor, always at a slow pace over an extended work-day punctuated by frequent periods of rest, but is altogether inad-

quate for the industrial tempo of Detroit. Hence, the "shortage" of labor in Russia today, an ominous shortage.

Capital is not a dogmatic norm of intrinsic value which can be controlled from beginning to end in any given place. It is wealth accruing from labor and savings. Capital is not static, but living; it is cumulative and constantly changing in its value which is in proportion to its position, its marketability, and many factors that cannot be computed. A crop in the interior of China varies in its capital value from a crop in Nebraska. Capital is measured in relation to the demand for the goods which it can purchase. You may calculate the value of one hundred million bushels of grain on hand, and plan its exchange into industrial machinery. But you cannot calculate the price of grain far enough ahead.

The capital resources of Russia are largely the production of grain, oil, and timber. The yield of grain depends upon such uncontrollable factors as the weather. One serious drought in Russia would upset irreparably any Five-Year Plan. On the other hand, a fair harvest in Russia and a superlative harvest in the Argentine would have a similarly disastrous effect upon such a plan, for it would reduce the exportable capital to an unknown figure. The appearance of a series of gushers in

Texas will cut the capital value of the Russian oil into half, even as the discovery of a large diamond field in South Africa recently, at a time when the financial depression engulfed the Western world, had rendered almost valueless the great Romanoff jewel collection in the Kremlin, a collection cherished as a treasure of emergency capital. The economic crisis in America, the collapse of world wheat prices, have greatly embarrassed the execution of the Five-Year Plan and drained the Soviet treasury, straining at the same time its credit abroad and home to a dangerous point, as evidenced by the depreciation of the Soviet currency.

The Stalin theory of building socialism in the country strikes a rock in this field alone. When the Amtorg, its leading commercial agency abroad, is forced to resort to short-term notes for amounts as low as \$250 in payments for goods purchased, it is a telling commentary upon the capital resources of the Soviet Union today. Unless Moscow found itself in possession of gigantic supplies of stable and exchangeable money, its future is bound to remain uncertain. But the capital reserves of Russia are exhausted, its savings are non-existent, and its labor does not produce, but consumes, wealth.

Primitive is the conception of the Bolshevist dictatorship that technical knowledge can either be acquired under high pressure or purchased

abroad and mustered into service by a strong political regime. It is true that kings and grand dukes have for thousands of years hired architects and engineers to build castles and palaces to carry out their whimsies. History has known of rulers who employed experts to build hanging gardens, canals, and even such civilizing projects as great irrigation works. The Stalin dictatorship, with a different objective in mind, approaches its great building program with the same attitude toward knowledge.

"The Bolsheviks must master technique," declares Stalin. His cry is echoed by his prime minister, Molotov, in these words: "The slogan of the mastery of technique is the central slogan." Such was the battle cry in the spring of 1931. But how does the dictatorship proceed to master technique? Ivan the Terrible imported architects from Venice and erected the famous and bizarre Cathedral of St. Basil in the heart of Moscow. But did he master technique? Stalin has imported specialists from Detroit and has erected a number of industrial pyramids. That part of it is easy in the modern world. Cables and tempting offers will bring to Moscow the finest engineering minds in the world. There is a vast gulf between a building program and a production program. The world is dotted



with non-producing monumental edifices, from the Chinese Wall to the Maya temples.

In our industrial civilization the construction of an enterprise forms its most elementary part. If it is not to remain an isolated castle on a mountain top, if it is not to be doomed to eventual ruin, such an enterprise must be a living outgrowth of the fabulously rich life of our contemporary world; it must subsist on the hundreds of cultural, economic, and purely human elements that are woven into the pattern of the newest society; it must inevitably depend upon a fine communication system, upon a highly organized network of distribution, upon an almost infallible method of accounting, upon a stable currency, an ample supply of nourishment, a certain standard of education, a set rate of productivity, a well-developed system of relaxation and entertainment, a minimum of domestic comforts and conveniences, and, above all, upon free expression of that indefinable something which makes human individuality—regardless of the fact whether the task in which one is engaged is dedicated to the welfare of all rather than to the welfare of a single person.

Technique is not a static commodity. It is a nerve of the human brain, it is a form of human intellect. Technique cannot be pumped into a machine by political device. The peasant who knows how to

operate a windmill or how to set a fox-trap is not necessarily possessed of technical knowledge which makes him fit to operate a modern machine. Between the two stages lies an abyss of accumulated intellect, generations and generations of development. When the Stalin dictatorship fitfully attempts to harness technique in a peasant country, it attempts to snatch the lightning and convert its single flash into myriads of sealed bulbs. The dictatorship would harness the human mind, insofar as it is represented by the engineering profession; it would limit it, confine it, prescribe its daily runs and make it . . . create! But not even a dictatorship can fetter, saddle and ride the human mind.

The problems of the Five-Year Plan, the problems of capital and labor, of the machine and of technique, are only now beginning to emerge. They are the problems of production, and production is the acid and ultimate test of the Five-Year Plan. A dim realization of the import of these problems was conveyed by the spokesman of the Kremlin, Premier Molotov, in March, 1931, when he declared: "It has been shown that we are better able to build new great works than to organize their production afterward."

Yet the roots of the problems of the *Five-Year Plan*, of the colossal task of organizing production, lie beyond the range of reforms, of efficiency

measures. They are inherent in a philosophy which is out-of-date, inherent in the antiquated social theory of Bolshevism. It is useless to judge the *Five-Year Plan* upon the basis of the reports of field workers; it has to be judged upon its own evidence, its deeper sources which tap the universal processes of the society that it is intended to affect profoundly. How misleading the observations of eyewitnesses can be is revealed by the fact that the first definite loud word which the outside world public had from Russia as to the problems of the *Five-Year Plan* came in July, 1931, when Stalin published his speech which virtually amounted to an announcement of a New Economic Policy. Dictators do not wake up in the morning with the bright idea of presenting their country and the world with a magnanimous manifesto. There were strong forces which dictated the Stalin move. Under a system where all vital information is centered in the hands of a small group such as Stalin's Political Bureau and is issued to the world in occasional fragments and only in accordance with the expediency of the moment, it is not surprising that for over two years the *Five-Year Plan* has been advertised as a challenge, a menace, a promise of a new social order, and has already been hailed both by its enemies and its champions as a success.

The problems of the *Five-Year Plan*, and all the succeeding Five-Year Plans for which it stands, the problems of building a planned and rational modern economic order in an inchoate and poor and primitive peasant land, arise out of the blind alley into which the dictatorship has led Russia. Just as the success of the *Five-Year Plan* would be a triumph for the idea of dictatorship, so its failure would be the exposure of its fallacy. That the dictatorship finds itself already in a blind alley, is evidenced by the frantic quest for easy remedies and solutions. Three months after Stalin's cry, "The Bolsheviks must themselves become specialists," he came out with a reversal of his policy, with concessions to the terrorized engineering class, with prizes to technicians under arrest! It is evidenced further by the fact that the equality in the labor wages has been abolished, that the piece system has been introduced, that a number of disciplinary measures have been adopted to stop the migration of labor and to increase efficiency.

Finally, in the spring of 1932, under the pressure of the inexorable economic consequences of his earlier adventures in the name of the *Five-Year Plan*, Stalin nullified most of the "achievements" of his dictatorial rule by lifting the ban on private trading in foodstuffs. Again, this retreat had not been predicted by the Moscow spokesmen

in the Soviet and world press. These spokesmen had been consistently humming the official tune that all was well with the *Five-Year Plan*. Stalin's newest policy confirmed the opposite. It revealed the bankruptcy of the collectivization drive, the catastrophic condition of the animal husbandry of the country, the growing shortage of food supplies, the alarming depreciation of the currency, and the even more alarming shortage of seeds for the sowing of the 1932 crops. A critical emergency developed in the month of March, signalized by strikes of workers clamoring for bread and by the passive resistance of the peasantry on the land. Once more, the dictatorship saw itself threatened from within. Once more, it took a leaf out of Lenin's scriptures and sought shelter in a camouflaged retreat to a partial NEP (New Economic Policy initiated by Lenin in 1921). The collective farms and individual peasants were granted the right to sell their surplus products in the open market. Whether such surplus products exist in quantities sufficient to satisfy the demands of a starved population is doubtful.

The dictatorship is seeking a way out—that is the meaning of the new Stalin course. It is resorting to palliatives for its radical problems. It is vainly striving to find simple cures for the revolt of the American machine on the Volga. Boldly it

manipulates its meager credit resources, and playing its political trump cards now in New York, now in Paris, now in Berlin and now in London, it strives to secure sorely needed funds, not to carry forward the *Five-Year Plan*, but to meet the bills for the equipment already purchased abroad.

But the dictatorship cannot locate the real and fundamental cause of its troubles, its zigzags, its futile assaults now upon one front, now upon another, because that cause is the dictatorship itself, because all the problems of the industrialization of Russia, because all the aspects of the true progress of Russia, are hopelessly entangled in the noose of the dictatorship. Because only by cutting the Gordian knot of dictatorial political power could a possible solution be indicated. But no dictatorship has ever surrendered its power voluntarily. And the Stalin dictatorship shows no signs of becoming an exception. It will find plenty of scapegoats yet, it will stage many maneuvers, retreats and advances, it will blame the world bourgeoisie, the backwardness of the Western proletariat, the delay in the coming of world revolution, and all the other now familiar enemies, for its own failures; but it will not abdicate except under pressure of a Titanic force cradled by its own blind policies in the depths of Russia.

