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**G. K. ORJONIKIDZE**

People's Commissar of Heavy Industry  
of the U.S.S.R.

**Completion of the  
Reconstruction of  
the Entire National  
Economy**



**INTERNATIONAL PUBLISHERS**  
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SEVENTEENTH CONGRESS OF THE  
COMMUNIST PARTY OF THE SOVIET UNION

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# Completion of the Reconstruction of the Entire National Economy

By

**G. K. Orjonikidze**

*People's Commissar of Heavy Industry  
of the U.S.S.R.*



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COMMISSION OF THE NATIONAL BANKS OF THE  
Soviet Union

# Completion of the Nationalization of the Soviet National Economy

by  
N. S. Zhukovskiy

People's Commissariat of Internal Affairs  
of the Soviet Union



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## 1. *Stalin Was The Soul of Our Whole Policy*

In the course of the three-and-a-half-year interval between the Sixteenth and the Seventeenth Congress of the Party, we solved simultaneously three fundamental problems: the creation of a heavy industry—the basis of the reconstruction of the whole national economy, the reorganization of agriculture on a socialist basis and the strengthening of the defence of the country.

Hence the enormous difficulties with which we were faced during this period.

Comrade Stalin in his brilliant report has shown how the Party worked during these years, how our socialist economy has been built up. The report gives a graphic and exhaustive picture of our victories and our shortcomings.

Comrade Stalin has given us a profound Marxist-Leninist analysis of the road which we have traversed, and has laid down the program of our future work both in Party work and economic construction, and in our foreign policy.

Every worker, wherever he may be employed, will find in Comrade Stalin's report the directions for the action he must take.

May I be allowed to say that Comrade Stalin has raised all questions to the height to which they used to be raised by the teacher and organizer of our Party, the organizer of the victories of October, the greatest re-

volutionary of all ages, the great disciple of the great Marx and the perpetuator of his teaching—Lenin. (*Loud prolonged applause.*)

Lenin left us ten years ago; but Leninism, his banner, has remained our guiding star. Lenin outlined the program of our actions. For all our victories we are obligated entirely to Lenin and Leninism. (*Loud prolonged applause.*)

As early as 1917, in the following thesis, which was written on the eve of the October Revolution, Lenin threw a gigantic searchlight, as it were, on the tasks with which the country was faced.

He wrote:

“Due to a number of historic causes: the greater backwardness of Russia, the particular difficulties the country has encountered in the war, the great rottenness of tsarism, the extraordinarily vivid traditions of 1905, the revolution broke out in Russia sooner than in other countries. Due to the revolution, Russia, in its *political* structure, has caught up with the advanced countries in the course of a few months.

“But that is not enough. War is implacable; it puts the question with merciless sharpness: either perish or overtake the advanced countries and surpass them also *economically.*” \*

These words determined the tempo of our economic development. During the years of violent civil war, the years of hunger and ruin, Lenin put forward a plan for the electrification of our country. During the same years Lenin raised the question of reorganizing our agriculture. He said:

“As long as we live in a small-peasant country there will be a more solid economic basis for capitalism than for communism. That must not be forgotten. Those who closely observe the life of the countryside, in comparison with that of the town, know that we have not eradicated the roots of capitalism and that we have not undermined the base and support of our in-

\* Lenin, *Collected Works*, Vol. XXI, Book I, p. 216.

ternal enemy. The latter is supported by petty economy, and there is only one way of undermining him, to transform the economic life of the country, including agriculture, on a new technical basis, the technical basis of modern, large-scale production."\*

In November 1922, Lenin said of heavy industry:

"... the salvation of Russia lies not only in a good harvest in our peasant economy—that alone is not enough; not only in the good condition of our light industry, which supplies the peasants with articles of consumption—that is not enough either—we also need a *heavy* industry. And many a year's work will be required to put heavy industry in good order.

"Heavy industry needs state subsidies. If we cannot find them, we are done for as a civilized, not to mention a socialist, state."\*\*

That, comrades, is the program outlined by a great genius. These theses of Lenin's formed the basis of the general line of our Party. The attacks which were made on Comrade Stalin after the death of Lenin by Trotsky, Zinoviev, Kamenev, Rykov, Bukharin, Tomsky and others were attacks on Lenin and Leninism, on the Leninist line of our Party. However much the opportunists of all shades may aver the contrary, we shall never forget that they attacked Stalin only because he was the brilliant perpetuator of the teaching of Lenin. (*Applause.*) At the Fourteenth Congress of the Party, when the fierce struggle against the Trotskyists was raging, Comrade Stalin, with the same skill, the same boldness and depth that Lenin had manifested in working and carrying out the teachings of Marx, developed Lenin's thesis on heavy industry, and on the basis of it propounded an extensive program for the industrialization of the country. He said:

"To transform our country from an agrarian into an industrial country capable of producing the requisite equipment with

\* Lenin, *Collected Works*, Russian ed., Vol. XXVI, p. 46.

\*\* Lenin, *Collected Works*, Russian ed., Vol. XXVII, p. 349.



its own forces—that is the essence, the basis of our general line. We must arrange things so that the thoughts and aspirations of the managers of our economy take precisely this direction, the direction of transforming our country from a country which imports equipment into a country which produces this equipment. For herein lies the principal guarantee of the economic independence of our country. For herein lies the guarantee that our country will not be transformed into an appendage of capitalist countries . . . .

“The authors of the Dawes Plan would like to limit us to the production of, let us say, cotton goods; but that is not enough for us, for we want to produce not only cotton goods, but also the machines which are necessary for the production of cotton goods. They would like us to confine ourselves to the production of automobiles, let us say; but that is not enough for us, for we want to produce not only automobiles but also the machines which produce automobiles. They want to limit us to the production of shoes, let us say; but that is not enough for us; for we want to produce not only shoes but also the machines which produce shoes. And so on, and so forth. That is the difference between the two general lines, and that is what Comrade Sokolnikov does not want to understand. To renounce our line is tantamount to forsaking the tasks of socialist construction, is tantamount to endorsing the Dawes-ization of our country.”\*

May Comrade Sokolnikov forgive me for mentioning his name today.

*Lubchenko:* It doesn't matter, it's good for him.

*Orjonikidze:* That, comrades, is the developed Leninist program of the industrialization of our country. It says absolutely everything. As early as the Fourteenth Congress of the Party, in 1925, Comrade Stalin raised the question of producing not only automobiles, but also the machines by which automobiles are manufactured. Comrade Stalin showed at that time how the state must be built, in order not to become an appendage of the capitalist states. In another place, in other circumstanc-

\* Stalin at the Fourteenth Party Congress.

es, Comrade Stalin put forward Lenin's formula "to overtake and surpass," and on this basis developed a concrete plan of action.

"To slacken the tempo means to fall behind. And the backward are always beaten. But we do not want to be beaten. No, we do not want this! Incidentally, the history of old Russia is the history of defeats due to backwardness. She was beaten by the Mongol khans. She was beaten by the Turkish beys. She was beaten by the Swedish feudal barons. She was beaten by the Polish-Lithuanian 'squires.' She was beaten by the Anglo-French capitalists. She was beaten by the Japanese barons. All beat her for her backwardness, for military backwardness, for cultural backwardness, for governmental backwardness, for industrial backwardness, for agricultural backwardness. She was beaten because to beat her was profitable and could be done with impunity. Do you remember the words of the pre-revolutionary poet: 'You are both poor and abundant, you are both powerful and helpless, Mother Russia.' These words of the old poet were well known to those gentlemen. They beat her, saying: 'You are abundant,' so we can enrich ourselves at your expense. They beat her saying: 'You are poor and helpless,' so you can be beaten and plundered with impunity. Such is the law of exploiters to beat the backward and the weak. The jungle law of capitalism. You are backward, you are weak, so you are wrong, hence, you can be beaten and enslaved. You are mighty, so you are right, hence we must be wary of you.

"That is why we must no longer be backward." \*

The capitalists would like our country to be abundant, but weak and backward, but what you and I want is that our country be both abundant and mighty. (*Applause.*) And it is not for nothing that Comrade Stalin said in his report—let it be heard by all those whom it may concern—"Do not poke your pig's snout into our Soviet garden." (*Applause.*)

\* Stalin, *Leninism*, Vol. II, "The Tasks of Business Managers," pp. 365-66.



You know how much care Lenin devoted to agriculture. He taught us that as long as we remain a country with a petty peasant economy, which spontaneously gives birth to capitalism, the danger of the restoration of capitalism has not been removed. This he said in 1920. In other circumstances, after the time of Lenin, Comrade Stalin, having rallied our forces for an offensive, boldly put forward in 1929 the slogan of the liquidation of the kulaks as a class and of all-round collectivization. The practical solution of Lenin's problem to reconstruct petty peasant economy on a socialist basis was thereby placed on the order of the day. Today we no longer have a petty peasant economy but our collective and Soviet farm economy, with our tractors and our fine agricultural machinery. From the point of view of the correlation of class forces within the country the danger of a restoration of capitalism has been wiped out for all time. (*Applause.*)

During these three and a half years, Comrade Stalin has been, as before, the soul of our whole policy, of all our socialist construction. Many a time during these three and a half years, when, as I have already said, we had to solve three enormous problems simultaneously, we were faced with difficulties: and every time, when we had one of these difficult moments, Comrade Stalin had a message for us. In the summer of 1931, when there were difficulties and hitches in our economy, when the coal situation was difficult, when there was trouble in all industry, we again heard Comrade Stalin's call, his famous six points, which thereafter formed the basis of all our economic work. On the basis of these points our Party has scored victories.

And so, from day to day, in our everyday work, Comrade Stalin has taught us, has pointed out how we should work; and as the result of this we have achieved

a very great victory. The struggle for the building of socialism in our country, for industrialization, for the collective farms, is inseparably bound up with the question of the tempo of our development. During the years since the death of Lenin the struggle has thus been a struggle for tempo. There are few fools now who would say that they are against industrialization in general, that they are against heavy industry in general, that they are against collectivization in general. No, but couldn't we somehow go a bit slower? That was the whole question. The whole question was: what tempo was to be adopted. However much the Rights and "Lefts" may aver the contrary, whatever else they may speak of, they must say once and for all, both to themselves and to the whole world, that their struggle was a struggle against Bolshevik tempo, and that was a struggle against industrialization, against collectivization, against the Soviet government. For if we had not developed a forced tempo, if we had stopped before the difficulties with which we were faced, we would certainly have brought about the destruction of the Soviet government.

## *2. Twenty-One and a Half Billion Has Been Invested in Heavy Industry*

Allow me now to state some facts showing how heavy industry was built up during these years.

During these years we carried out enormous capital construction, while at the same time we had to master the new factories, introduce new branches of production and train new cadres. It was not an easy task. A vacant spot outside Kharkov or outside Gorky, somewhere near the Magnitnaya Mountain, in Kuznetsk or in Zaporozhye, on the banks of the Dnieper, an absolutely empty lot—such were the sites on which we had to erect enormous factories and plants, install most modern techni-

cal apparatus and master this technique. This had to be done at the greatest possible rate of speed. But it required enormous forces, it required the straining of every fibre of the country. But the Party and the working class achieved this. And what are the results? What progress have we in heavy industry? I shall quote a few figures which will show the changes that have taken place in heavy industry. The figures I am about to name cover about 87 per cent of the gross output.

In 1930, *i.e.*, in the period of the Sixteenth Congress, out of a total output valued at 7,600,000,000 rubles, the old plants produced 6,000,000,000 rubles' worth, *i.e.*, almost four-fifths of the total production. Plants whose basic funds have not increased more than 50 per cent I include among old plants. Reconstructed plants are those whose funds have increased anywhere from 50 to 300 per cent. If we have quadrupled the basic funds of any particular plant, you can see for yourselves how much of the old there is left in it. In 1930, the new plants produced 16 per cent of the total, an output valued at 1,200,000,000 rubles; reconstructed plants—4 per cent, or an output valued at 315,000,000 rubles. In 1933, the same group of plants produced a total output valued at about 14,000,000,000, rubles, of which 10,800,000,000 rubles' worth of products was manufactured by new and reconstructed plants, and 3,000,000,000 rubles' worth by old plants.

In 1930, of a total output in machine building valued at 3,900,000,000 rubles we received 3,000,000,000 rubles' worth from the old plants, and 870,000,000 rubles' worth from the new or reconstructed plants. In 1933, of a total output to the value of 8,000,000,000 rubles, we received only 1,800,000,000 rubles' worth from the old plants, and 6,200,000,000 rubles' worth from the new and radically reconstructed plants.



In the heavy chemical industry, in 1930, out of a total output valued at 143,000,000 rubles the old plants produced 120,000,000 rubles' worth, whereas now the old plants produce only 16,000,000 rubles' worth out of a total output valued at 280,000,000 rubles. These are the changes which have taken place in heavy industry during the course of these years. What does this mean? It means that during these years we had to build an enormous number of factories and plants, sink an enormous number of shafts and pits, and so on, and had to master them. At the Fourth Congress of the Communist International Lenin recounted with delight that he had succeeded in locating 20,000,000 gold rubles for heavy industry, while during the last three and a half years we have invested 21,500,000,000 rubles in our heavy industry (*applause*), including about 1,000,000,000 gold rubles' worth of imports.

During the course of these years the basic funds of industry have increased from 8,300,000,000 rubles to 21,900,000,000 rubles. And if we are to take production funds alone (excluding housing and communal construction, etc.) we had, on January 1, 1934, 16,700,000 rubles, instead of the 6,000,000 rubles which we had on October 1, 1930—an increase of 151 per cent. These figures give us an understanding of the strain which national economy had to undergo in order to build up its industry.

Comrade Stalin always reminded us in this connection: if you want to build up an industry, if you do not want our country to become an appendage of the capitalist countries, bend your shoulder to the wheel, and in a few years' time we will reap our reward.

Today, comrades, I can boldly state from this tribune that we already have this reward. (*Applause.*) During these years we have built a large number of factories.

good factories. We can say without boasting that we have factories which have no counterpart in Europe. How we work in these factories is another matter; I shall speak of this later. But the factories are splendidly built. Take our automobile and tractor plants—Europe does not have their equal. Take our Chelyabinsk Tractor Plant—there is no other such enormous and splendidly equipped plant, not only not in Europe but not even in America, I think.

I have seen many different construction jobs in our country—both good and bad—but I have failed to see another one as wonderful as the Chelyabinsk Tractor Plant. We must give their due both to the builders and to the workers of the Urals, particularly to Comrade Kabakov, who is a staunch friend of industry—they have built a splendid plant. (*Applause.*)

At the Sixteenth Party Congress it was decided to develop heavy machine building in order to secure Soviet-made equipment for the metallurgical plants, the mining and chemical industries, etc., which were in process of construction. For this purpose we built the Kramatorsk Plant, a good plant; we built the Urals Heavy Machine-Building Plant; then we have the Sumsk Chemical Machinery Works, which we also call an old plant. It is an enormous plant. The Izhorsk Plant and a number of other plants can supply the country with every kind of equipment it needs. Only we must manage this, we must want it and fight for it, whereas we often have cases like the following: you say that a certain kind of machine has to be built, and are told in reply: "That type of machine cannot be wedged into the program." "And what is your program?" He gives the figure. "And what is your plant's capacity?" You find that it is much larger than the program. This happens very often, and is a thing that we must fight against.

### 3. Machine Building is the Key to Reconstruction

What have we achieved during the course of these years? Have we succeeded in organizing machine building? Comrade Stalin has already replied that we have a machine-building industry, and the key to reconstruction of the entire national economy is therefore in our hands. But he added that we have to use this key skillfully and rationally. Unfortunately, we do not yet use this key rationally—neither the managers of our economy nor others—and I consider that all work in our country, whether it is the work of a Party Committee, a District Committee, a District Secretary, of the Central Committee, or of industrial managers, is first and foremost economic work (*voices: quite right*), for we are building socialism. We must all do a great deal of work in order that the enormous wealth which we have created during these years may bring enormous returns. We have had to build a great deal, we have had to introduce new processes of production not only in the new plants but also in the old; we have had to change plants from the branches of production in which they were producing before to new branches of production. Our old industry was fitted out for entirely different tasks. Take, for example, agricultural machine building; what did it use to manufacture? It used to manufacture exclusively horse-drawn agricultural implements. The whole agricultural machine-building industry was built with a view to supplying individuals, with a view to producing a machine, a plough that could be drawn by a strong or weak horse. It is self-evident that with such a machine-building industry we could not place collective economy on a technical base. In 1930 we produced horse-drawn agricultural implements; we put out 1,769,000 horse-drawn ploughs; now we put out only



79,000. (*Voices: That's not enough.*) If we need more, remember that in any case it is easier for industry to produce a horse-drawn plough than a tractor plough. (*A voice: Not a very big one, either.*) We used to produce 30,000 husking machines; now we produce 11,000. The production of tractor-drawn implements has increased. In 1930 we produced 25,000 tractor ploughs, in 1933—67,000; of which the number of grain ploughs in 1930 was 25,000 and is now 53,000. In 1930 we produced no special ploughs; in 1933 we produced 2,588 of them. In 1930 we produced 39 cultivators; in 1933 we produced 16,000 of them, etc. In 1930 the total output of the agricultural machine-building industry amounted to 321,000,000 rubles; in 1933 it amounted to 390,000,000. It seems as if the increase were not particularly great—70,000,000 rubles. But in 1930 the value of tractor-drawn implements produced amounted to 81,000,000 out of the total of 321,000,000, whereas in 1933 it amounted to 320,000,000 out of 390,000,000.

The whole structure of production has changed in this way.

In 1930 we produced no equipment for the metallurgical industry—no blooming mills, rolling mills, Brosius cannons, ladles, pig iron carriers, disintegrators, scale cars, Otis or Ilgner elevators, or slag carriers. At the present time we produce all these, and can produce all metal-working equipment. Our “old” Izhorsk Plant, which has now been considerably re-equipped, has already put out three splendid blooming mills, two of which have been installed and are working, while the third is being installed in the Zlatoust Plant; moreover, our blooming mills work no worse than the foreign Demag blooming mills, and their quality is in any case no lower than that of the foreign mills.

We produce all the equipment necessary for our mining and oil industries, but we do not as yet produce the quantity the country requires; however, not because we do not have the technical capacity. We are building oil cracking apparatus of our own, designed by engineers Shukov and Kopelyushnikov; we are producing coal cutting machines, compressors, all kinds of windlasses, elevators, electric locomotives for mines—absolutely everything our mining industry requires.

We used to produce no machinery for the peat industry; now we do. We used to produce no equipment whatsoever in our country for the chemical industry; now we do. And we are basing the enormous program of the second five-year period in the chemical industry—the fulfilment of which will bring our chemical industry to second place in the world—wholly on our Soviet-made equipment. We are producing 50,000 kw. turbo-generators and all the other equipment for our power stations. We are producing Diesel engines, pumps, compressors; we have built our own optical industry, etc. But in one of the points raised by Comrade Stalin at the Fourteenth Congress of our Party—the production of machinery to produce machinery, machine-tool building—we are still lagging behind. We must say so straightforwardly. We have a considerable number of new machine tools, we have built and equipped some pretty good machine and hand tool construction plants, and this year we have a program of 19,000 machine tools, including about 63 new types.

But in order to equip our future automobile plants which we are beginning to build this year we must have an enormous quantity of machine tools. If we were to base this construction on imported machine tools it would cost us several hundred million gold rubles. It would be ridiculous, it would be an absolute disgrace

for our industry if it did not equip our future automobile plants with a vastly preponderating number of Soviet-made machine tools. (*Applause.*)

We shall have to build several machine-tool building plants, complete the equipment of those which we already have, utilize the plants of the armaments industry and thus produce the large quantity of machinery we shall need.

Even today we must begin to prepare for the work of 1937.

The program for 1934 calls for 19,000 machine tools of the latest type. In 1937 our industry must produce 40 to 50,000 machine tools. (*Applause.*) Unless we accomplish this we shall not be able to meet the requirements of our country, we shall not be able to carry out fully Comrade Stalin's point—that in order to have an industrial country, in order to have a country which will not be dependent on the capitalist countries, we must learn to build not only automobiles and tractors but also the machinery which produces these motor vehicles. (*Applause.*)

We must undertake and under all circumstances discharge this obligation, and I am certain that we shall discharge it. (*Applause.*)

We have spent a great deal of money on imports. What are we to do now? Unless we free the country of its dependence on imports we shall again have to import. We import no more tractors. That we know. I see Comrade Bruskin, the Director of the Kharkov Tractor Plant, smile: he has expended a great deal of labour and energy in order to put an end to the importation of tractors. He will have to expend a great deal of labour and energy in order to have all his equipment skilfully and rationally used. But even in these foremost plants—in Comrade Bruskin's Kharkov Plant, in Comrade Tre-



gubenkov's Stalingrad Plant, in Comrade Likhachev's Moscow Automobile Plant, in Comrade Dyakonov's Gor'ky Plant—working time is not fully utilized by any means.

Our country is the only country in the world which has the seven-hour day. No worker in any of the capitalist countries can even dream of having a seven-hour day under the conditions of capitalism, but in our country, in the country of the dictatorship of the proletariat, we have the seven-hour day. But do the workers in our factories work seven hours? No, they do not work even five hours, and if in some places they work five or five and a half hours they begin to boast: Look, we work five hours, and other plants work only four. Do not take the worst as your example, friends. During a conversation with Comrade Bruskin I raised this question (in his plant, too, they work five hours) . . . .

*Bruskin:* No, more.

*Orjonikidze:* How much more?

*Bruskin:* About six hours.

*Orjonikidze:* No, they don't work six hours. (*Laughter.*)

When I raised this question, he replied, seriously and like a good Bolshevik, that I was right and that during the course of this year he would see to it that everyone worked the proper length of time—a full seven hours. When he arrived at the Congress he said that he would achieve this in the beginning of the second quarter. If he achieves this, why should not Tregubenkov, Likhachev and Dyakonov try to achieve it? Incidentally, in Dyakonov's plant they work less than five hours.

#### 4. *Precise Organization of Production and Flexible Leadership is the Principal Task*

The projected capacity of the automobile and tractor plants which we have exceeded was based on a seven-hour day; people work five hours and yet they have exceeded the projected capacity. Either this projected capacity is no good at all, or else there has been a miracle. But miracles don't happen. The point is that our projected capacities are underestimated. They were calculated in 1928-29 on the following basis: if, for instance, an American worker can produce four rubles' worth during a certain time, a Russian worker will produce one ruble's worth during the same time, *i.e.*, the efficiency of an American and a Russian worker are in the ratio 4:1. Now, why should an American worker in a General Motors or Ford plant work better than our workers in their own country, under the dictatorship of the proletariat?

I am sure that if we present this question squarely and in a Bolshevick manner to our workers, they will work much better for themselves, for their state, than the workers abroad work for the capitalists. (*Applause.*) But in order that we may accomplish this, comrades, we need precisely what Comrade Stalin spoke of: *organization*. It is not a question of our workers not wanting to work, it is not a question of our directors, our engineers not wanting to work. Nothing of the kind. The enormous cadres which we have trained are burning with the desire to work, but we do not know how to organize them. Yet the Bruskins can and know how to organize them, and we must demand that they do so. They can, they know how, and I am sure that they will do this. The degree of organization in our country is still very low. Very often a worker loses time running

all over the plant when he has to fetch tools, material, blueprints, etc., and this time is wasted. Not long ago three of our directors wrote an article to the "Discussion Sheet" of the *Pravda*, boasting that they had outstripped General Motors in the production of some parts—that they were producing much cheaper. This is not so, and it would have been better if Comrades Dyakonov and Likhachev had not signed this article. You have been working pretty well, you have made enormous strides forward during this period, the Party has praised and rewarded you for this, but do not get swelled-headed, or you may get the false idea that everything has already been achieved. It is not true; not everything has been achieved if we work five or five and a half hours instead of seven hours.

I have spoken of the best plants—the plants of the automobile and tractor industry. They are our foremost plants; they have lowered costs, they utilize labour much better than other plants, but even these foremost plants have such defects. Then what can be said of our other plants? These things are much worse. Correct placement of labour, correct organization of the place of work give us enormous possibilities for increasing our output further. I think that the true capacity of our tractor plants—both the Stalingrad and the Kharkov plants—is not 40,000 tractors a year but much more, not to mention the Stalin Plant and the Molotov Plant in Gorky. Comrade Likhachev puts out 20,000 automobiles; he puts them out pretty well and keeps his plant working evenly. But it is my profound conviction that the productive capacity of this plant is much greater, that this plant can produce 25,000 to 27,000 automobiles—and if certain defects are remedied—even 30,000 automobiles or more. And how does the Gorky Plant work? It thinks it works well; it puts out about 140



automobiles a day, and if we take into account the daily production of motors for combines and of spare parts, which is equivalent to about 60 automobiles, we find that it puts out about 200 automobiles a day. But I am convinced that if work were properly organized in this plant it could produce considerably more than it does now.

And so it is with all our plants. During these years we have accumulated enormous capacities. Let us use these accumulated capacities, as Comrade Stalin pointed out, skilfully and rationally.

To return to the question of freeing ourselves of dependence on imports: If we take our agricultural machine building, electrical and general machine-building industries, we get the following picture: in 1930 we imported machinery to the value of 365,000,000 rubles, while the output of our plants represented a value of 3,169,000,000 rubles; in 1931 our imports amounted to 410,000,000 rubles and our plants produced to the value of 4,590,000,000 rubles; in 1932 imports amounted to 340,000,000 rubles and Soviet output to 5,816,000,000 rubles; in 1933 imports amounted to 155,000,000 rubles and Soviet output to 6,297,000,000 rubles. (*Loud applause.*)

Thus we see that the country grudged no expense in order to build up its own industry; it imported a great deal. But already in 1933 imports amounted to only 155,000,000 rubles, whereas our plants produced to the value of 6,300,000,000 rubles. As for the present year, 1934, the imports we have planned so far amount to only a few million rubles.

In 1934 the value of the output of the Soviet machine-building industry must be not less than 10,000,000,000 rubles. (*Loud applause.*)

For individual manufactures, freeing ourselves from

the necessity of imports took the following course: Ball bearings we formerly did not produce at all. In the course of these last years we have built the enormous Kaganovich Ball-Bearing Plant, a splendid big plant, the pride of our country. It is not a plant but a palace decorated with splendid machinery. But as yet we are far from having completely mastered the operation of its equipment; yet progress has been made. During the past year the plant already paid for its imported equipment. The value of the ball bearings the plant has produced exceeds the value of the foreign equipment imported for it. Nevertheless, this plant can and must produce much more. Last year it produced 6,600,000 ball bearings; this year the program specifies 16,000,000.

By developing the work of the ball-bearing plant we have ensured the supply of Soviet-made ball bearings to meet the growing requirements of the automobile, tractor and aviation industries. In 1930 the domestic output of ball bearings amounted to 350,000 pieces, while 2,800,000 bearings representing a value of 13,000,000 rubles were imported. In 1931 we produced 400,000 and imported 6,000,000 bearings worth 21,000,000 rubles. In 1932 we produced 1,700,000 and imported 8,200,000 valued at 20,000,000 rubles. In 1933 we produced 6,600,000 and imported 4,200,000 valued at 10,000,000 rubles. This year we ourselves shall produce 17,000,000 and reduce imports to but a few million.

If our ball-bearing plants pull themselves together as they should they can do away with imports altogether.

Take magnetos. They are produced by the Moscow Electroavod. The magneto is the heart of the motor, without which the particular piece of machinery cannot function. In 1930 we imported 4,000 magnetos and produced none of our own. In 1931 we imported 22,000 and still produced none of our own. In 1932 imports

amounted to 46,000 but we already had 28,000 of our own manufacture. In 1933 we imported 54,000 and produced 101,000; and the plan for 1934 places imports at a few thousand and the Soviet output at 202,000. (*Applause.*) After the second quarter we shall cease to import magnetos altogether.

Thus, comrades, by building up our industry, by creating our own machine-building industry, we have gradually been making ourselves independent of imports. Of course, this does not mean that we want to build a state surrounded by a Chinese wall, that we shall trade with no one and buy nothing abroad, but we prefer to be in a strong position when we negotiate with our partners. Trade is a matter of gains and losses, a matter of profitableness, and one can derive the full advantage of foreign trade only when one is strong and independent.

During these last years we have been consolidating our independence and organizing all the branches of industry we require. We have radically reconstructed the work of our machine-building industry. New machinery, new equipment, is in operation in 78 per cent of the whole machine-building industry.

### *5. Electrification, Coal, Oil*

You remember, comrades, what enormous importance Lenin attached to electrification. How have we succeeded in this sphere? If we take 1930 and compare it with the present year, we obtain the following picture.

In 1930 our district power stations, including the big industrial power stations, had an estimated capacity of 937,000 kws. On January 1, 1934, they had an estimated capacity of 3,666,000 kws.



If we take the figures for individual districts we see the following: The Sixteenth Party Congress decided that the shortage of electric power in such districts as the Ukraine, the Urals and so on must be eliminated. How has this task been carried out, what is the situation now? In 1930 the district power stations of the Ural Region had an estimated capacity of 34,000 kws.; today they have an estimated capacity of 400,000 kws.

It was 34,000 kws., and in three and a half years' time it became 400,000 kws.

In 1930 the district power stations in the Ukraine had an estimated capacity of 225,000 kws., and on January 1, 1934, they had a capacity of 1,138,000 kws.; yet the Ukrainians keep on saying: "We are short of power." (*Voices from the Ukrainian delegation: "Yes, yes, in Kiev we're short."*) Well, comrades, since you have decided to make Kiev a new Soviet capital, we shall have to build a power station there; it can't be helped. (*Laughter and applause.*)

In the R.S.F.S.R. we had an estimated capacity of 674,000 kws., now we have a capacity of 2,288,000. In the Crimean republic we did not receive a single kilowatt from district stations, now we get 10,500 kws. In Transcaucasia we had a capacity of 114,000 kws., now we have one of 206,000 kws. In White Russia we did not have a single kilowatt of estimated capacity, now we have 20,000 kws.; in the Uzbek republic we did not have a single kilowatt, now we have a capacity of 13,000 kws. at the district stations.

That is how our supply of electrical energy has developed during these three and a half years.

*Eikhe:* We are short in Western Siberia.

*Orjonikidze:* In Western Siberia you are short? In 1930, Comrade Eikhe, Western Siberia had nothing, now it has an estimated capacity of 71,500 kws.

*Eikhe:* It's not enough.

*Orjonikidze:* I don't say it's 100,000 kws., but you had nothing and now you have 71,500. (*Laughter.*)

That is the situation in the electric power supply.

In 1931 Comrade Stalin devoted a great deal of attention to thermification, the advantages of which had up to then not been recognized, and asked how long we intended to heat both our industrial buildings and our dwelling houses by a system which requires an enormous quantity of wood, coal and everything else, and why we should not adopt a plan of thermification. What has been done in this sphere? Until the June Plenum of 1931, at which this question was discussed, we had a thermification capacity of 200,000 kws. Between July 1931 and January 1934 new capacities of over 400,000 kws. were brought into use, chiefly at big industrial power stations. During the next year or two a thermification capacity of another 400,000 kws. or so will be brought into use.

About fuel. I shall not speak in detail of coal, because through the strenuous efforts of the C.C. and with the tremendous assistance given by Comrade Stalin, we have now achieved pretty good progress in this sphere. But when that question was raised we were so situated that the shortage of coal threatened to become a hindrance to our further development. This was in the winter of last year, when we extracted less coal than the winter before. Now we have undoubtedly succeeded in bringing about an improvement in this sphere. But again comrades, we should be making a very great mistake if we thought that everything was as it should be in the Donbas, in the Kuzbas and in the other coal fields. Do not forget that productivity of labour in the whole of the coal industry, particularly in the Donbas, is low-

er now than it was in 1930. We must give this matter our serious attention and bring about an improvement.

Comrade Sarkis was perfectly right when he said that at present we have an enormous number of mechanisms and are producing as many as we need, but that the treatment and the use made of these mechanisms is still barbarous. Comrade Sarkis said that the Donbas must dig 60,000,000 tons of coal.

*Voice from the hall:* At the least.

*Orjonikidze:* I think that the Donbas will manage this without particularly great exertions.

Sixty million tons of coal is not a very large program for the Donbas. True, it is not a small program, it won't be a walk-over, but it cannot be said that it will be a very great strain. So our comrades in the Donbas must fulfil this program and I am sure that they will.

Comrade Stalin's remarks on the development of the local fuel basins are absolutely correct. Unless we develop them we, our transport and our whole national economy will be sorely tried. It is absolutely intolerable that coal be brought to the Moscow Region from the Donbas. We must undoubtedly develop the Moscow Basin to the full. We must undoubtedly develop coal mining in the Urals to the full, we must undoubtedly develop the extraction of coal in all the districts—Siberia, the Far Eastern Region, Transcaucasia and Central Asia, not to mention Karaganda, which must be transformed into a powerful coal field.

Comrade Stalin's remarks on the necessity of transforming the Kuzbas into a second Donbas are perfectly correct. We have all the possibilities for carrying out these plans. To see examples of good work, of well organized mechanization, our coal miners and managers have no need to go to Germany or America; they can



go to the Kuzbas and see how the work is organized there.

The oil industry forms a very important branch of our national economy, and not only as a fuel for factories and plants. To what use could we put our aeroplanes, automobiles and tractors without oil, gasoline and kerosene? In this sphere our achievements are not remarkable. We must not lull ourselves to sleep with the thought of our past victories, the idea that "we fulfilled the Five-Year Plan in two and a half years!" It is true we fulfilled it. And then? Then things got worse. The Grozny workers kept boasting all the time that they had fulfilled the Five-Year Plan in two and a half years. Well done, and many thanks to you for having fulfilled it in two and a half years. But don't we need oil after the two and a half years? We do. Yet they lowered the quantity of oil extracted. This will never do. We must talk not only about how we used to fulfil the program in the past, but also, and mainly, how we are fulfilling it now. In this respect things are faring none too well now.

Take the "Azneft." Last year it worked pretty well in comparison with the year before. Moreover, beginning with the spring of last year, our comrades, the Baku and Transcaucasian workers, showed some very good examples of Bolshevik work. They overfulfilled their program; the quantity extracted on some days was almost 60,000 tons—56 and 57,000 tons—and it averaged 53 to 54,000 almost all the time. But, dear Transcaucasian comrades, we are interested not only in the oil we produced last year, which we shall soon have used up. We must have oil extracted today. And you are working none too well. Beginning with the middle of November, the quantity extracted dropped throughout December and January. Instead of the projected 58,000 tons a day,

how much do we get now? Forty-five to forty-nine thousand. And in order to supply the country with oil we must accumulate reserves in Baku before the spring and take it away when the watercourses are navigable. Otherwise, if you increase the output of oil only in the middle of the summer or in the autumn, we shall not be able to transport the oil and to supply the country with it.

Comrade Beria spoke about the necessity of supplying the oil industry with equipment and with everything it needed. We fully guarantee the supply of all necessary equipment. But you must know, Comrades from Transcaucasia, that the utilization of this equipment and the increase in oil mining depends 99 per cent on you, and you must show the same Bolshevik tempo in oil mining that you did last year. This matter is of great importance for our national economy.

As for Grozny I must say that here they are still marking time and are even retrogressing. As long as their wells were gushing, the Grozny workers were ready to tell the whole world about it, but as soon as the gushing stopped it turned out that they knew neither how to bore nor how to extract oil. We cannot go on working like this. At one time the following theory prevailed in Grozny—Grozny is exhausted, there is no more oil to be had, what do you expect us to do? Afterwards, when they took a little trouble and bored properly, they did find oil.

Comrade Stalin gave certain instructions about the oil of the Urals, the Emba and Central Asia. There is no need to repeat them; they must be carried out. And we shall try to do so. Comrade Stalin said: Our metallurgy, both ferrous and non-ferrous, is lagging behind. Unutterable confusion prevails in our non-ferrous metallurgy. Not long ago, in accordance with the decision of

the C.C., brigades were sent to the non-ferrous metal districts—the Urals and the Ridder—Comrade Pyatakov's brigade and Comrade Shakhmuradov's. What we heard from these brigades, comrades, testifies to such an outrageous state of affairs at the mines and mills of the non-ferrous metallurgical industry as passes all belief.

*Roisenmann:* Absolutely disgraceful.

*Orjonikidze:* You read and wonder how people can do such things—they understand nothing; they spent a lot of money and show no results.

I think however that we shall cope with this business. These mines and mills are splendidly equipped with the latest technical improvements, only this equipment is barbarously misused.

#### *6. Eliminate the Lagging of Ferrous Metallurgy*

Ferrous metallurgy. Here we are undoubtedly lagging. Almost the entire output of ferrous metallurgy in 1930 was produced by the old works. Of the total output of ferrous metallurgy, which in 1930 amounted to one billion rubles, the old works produced 966,000,000 rubles' worth, while the new and reconstructed works at that time produced hardly anything. At the present time we have an output valued at over 1,500,000,000 rubles, only 384,000,000 rubles of which is produced by the old plants, the remainder, 1,134,000,000 rubles, constituting the output of new and reconstructed plants.

Enormous sums have been invested in ferrous metallurgy, and the technical capacities created are very great indeed. During this period we have built, have learned to build, big blast furnaces, open hearth furnaces, blooming mills. On January 1, 1934, the total volume of all blast furnaces amounted to about 42,000 cubic



metres, as compared with 24,000 cubic metres in 1930. These are enormous capacities. Today metallurgy produces 24,000 tons of pig iron a day, and twice it has produced 25,000. But instead of the 9,000,000 tons of pig iron planned for last year we put out only 7,133,000 tons. This year's program for pig iron is 10,000,000 tons, for rolled metal—7,000,000 tons, for steel—9,800,000 tons. Can we fulfil this program? If we work well we can *overfulfil* it. We possess all the technical prerequisites for doing so. I shall not speak, comrades, of the coefficient of utilization of the useful volume of blast furnaces in American and German mills; I shall speak of the Stalino Works managed by Makarov, in the Donbas. This mill is not mechanized at all. Ore, coke and flux are brought to the furnaces by hand trucks. In this respect the mill is antediluvian. And nevertheless, in the course of seven months of last year this mill has shown examples of pretty good work. The coefficient of utilization of the useful volume of blast furnaces is 1.22, while in the whole of the metallurgical industry the average coefficient for last year was 1.66. If we succeed in organizing work in other metallurgical works as well as it is organized in Makarov's Stalino Works we shall receive about 33 to 35,000 tons of metal daily. What is the point here? What is the secret of the success of the Stalino Works? It is not mechanized, so that if we compare it in this respect with, say, the Makeyevka Mill we find it at a disadvantage. The ore is the same, so is the coke. Incidentally, the expenditure on coke in the Stalino Works is too high. In order not to return to this again, I must add that the rolling department is not working very well either.

The flux is the same. In a word, the Stalino Works is no different from any of the Donbas Works. Why then is its coefficient of utilization of the useful volume of

blast furnaces 1.22 when others have 1.41, 1.67, 1.50? It is clear that *it is only a question of what people are on the job.*

I know Makarov's technical personnel. His engineers are pretty good. Comrade Nemtsov (now technical director of the Voroshilov Works), who was specially assigned to work on the blast furnaces under Makarov, is a pretty good engineer, but we have many like him. Makarov's technical director, Comrade Kotin, is a pretty good manager, but we have many such technical directors, and better ones, too. Why has Makarov made good? He has succeeded in organizing the work thanks to his firm management. Makarov has established a fixed schedule for serving the furnaces (charge, blast, etc.). And that is the main thing. Incidentally, this is nothing very much out of the ordinary, but one has to understand all these things and to organize everything. And if the daily report of the Stalino Works is late, I always say, "That's all right, Makarov will get it out." When his smelting figures sometimes become erratic, I say, "That's all right, Makarov will manage to get it even." All other metallurgical works must make the Stalino Works their model. Comrade Puchkov (Yenakiyevsky Works) who is present at this Congress, Comrade Manayenko (Dzerzhinsky Works) who is present at this Congress, Comrade Ivanchenko ("Vostokostal") and all the other managers and workers of the metal industry who are at this Congress, and those who are not, must imitate the Stalino Works. We do not as yet demand that you duplicate the American coefficient while working on the old mills, nor even the German coefficient; we shall demand it tomorrow, but today you must give us at least the same kind of work that the Stalino Works gives.

In Puchkov's Yenakiyevsky Works things are not bad, but his figures are bad: the coefficient of utilization is

1.30, 1.35 or more; the same applies to Comrade Manayenko's Dzerzhinsky Works and others. Why should not Comrade Puchkov be able to organize the work? He has an excellent personnel of young Party and non-Party engineers: Butenko, the rolling mill engineer Pyatigorsky, Berlin, who is making a very good job of the Bessemer process, the open hearth furnace worker Sokolov, and other very good workers. At the Dzerzhinsky Works the Bessemer process is working well. But these people have to be organized.

There is one other trouble. When the metal workers, after the disgraceful work they did in 1931 and 1932, began to work a little better in 1933, they decided that there was no further room for improvement. This is the way they reason: The mill used to produce 1,200 tons, now it produces 2,000 tons; well, what more do you want? And how are you using the machine units you have? You are using them badly. It is not only the Stalino Works that is working well. Take the "Azovstal" Blast Furnace No. 1—its figures are better than those of the Stalino Works. On this furnace, the coefficient of utilization of the useful volume of blast furnaces is 1.19. Take the Zaporozhye Blast Furnace—its coefficient is 1.17. Take the Magnitogorsk Blast Furnace, No. 3, it has excellent figures; in August—1.05, in September—1.07, in October—1.02. Those are the sort of figures these furnaces are giving! All new blast furnaces should make them their models. We have examples of good work in metallurgy, we have good workers. We must bring pressure to bear on this phase of our work, so as to set it in order at all cost.

The question has absolutely nothing to do with objective causes, for I see no difference between the Makeyevka Works and the Stalino Works. The only difference is that we have not mechanized the Stalino Works,



and we have mechanized the Makeyevka. In the Makeyevka Works the director is Comrade Gvakharia; he did exemplary good work during the period of construction, he did good work in setting things right in the mill. But then he fell ill, and has been away for about two months. Now the mill is not giving the figures it should. But we need not only well-built blast furnaces and well-built mills, we need not only clean yards and clean shops, we need a large output, and this Comrade Gvakharia and his assistants must give us. His blast furnaces can put out much more metal than they are putting out now.

Take the Magnitogorsk Combinat. These days the Magnitogorsk Combinat is working splendidly. Yesterday they smelted 3,100 tons on three furnaces; they produced very good figures. Why cannot they continue to do so every day? Why? The fact that they did it once shows that there are people who know how to look after furnaces. Therefore they must work out a system that will prevent fluctuations, as Makarov did.

What is the trouble in ferrous metallurgy? Not that we do not have the technical capacity, nor that we do not have the people. The people have turned up. Two or three years ago we had a great many empty places, we had no people at all; but now young specialists have made their appearance. The work at the "Magnitka" is led by Comrades Zavenyagin and Klishevich—two of our young engineers—and together with them by all the young workers who work there. They did and do manage the "Magnitka" at 40° below zero, if need be, and not badly either. At 35° below zero they blew in blast furnace No. 4 and fired it splendidly. And I remember an engineer of the McKey firm trying to persuade me under no circumstances to have the furnace blown in during the winter: "If you have no political reasons," Engineer Haven said in

1931, "please don't do it, for the furnace will be ruined." With regard to the first furnace he proved a true prophet; we did ruin it. But we ruined it owing to our bad work; furnace No. 4 was blown in at 35° below zero by our young engineers and is working well. So we already have new cadres. That is our greatest achievement. But we must now establish a *system* of work for these cadres, we must have them know how to work and learn from the old specialists. But I must say, comrades metal workers, that without a great deal of struggle against some of your home-baked metal workers you will not be able to advance the work properly.

Only a few days ago one competent expert on non-ferrous metallurgy—Engineer Lugovtsov—reported to me and described what measures we should take in order to increase the output of pig iron in the old mills. For this purpose he wanted 176,000,000 rubles. I said that that would be no obstacle. And afterwards, what did it all come down to? To making the coefficient of utilization 1.40. Why, 1.40 is an index of rather poor work!

*Stalin:* What is his name?

*Orjonikidze:* Lugovtsov. Not a bad engineer, an expert in his line and a hard worker. But the trouble is that people live in the past, they look back instead of ahead. Here our Communist directors, our Communist engineers and our young engineers generally must play a big part. The old men still have a lot of the old-time routine and traditions in them, and *in this respect* the young specialists must not yield to the prestige of the old. Take from the old engineers their valuable knowledge, but under no circumstances succumb to their habits of routine and inertness. We must carry on a ruthless struggle against this routine and then I am sure ferrous metallurgy will put out 10,000,000 tons of pig iron this year and that we shall fulfil the Second Five-Year Plan.

The country and the Party have literally done everything to achieve this. It is often said that we are short of transportation facilities, short of steam locomotives. We shall find more engines, but we must learn to use those we have.

The same must be said of open hearth furnaces. We have accumulated enormous capacities, but they are poorly utilized. Our best example of the utilization of open hearth furnaces is provided by Comrade Stepanov's "Hammer and Sickle" Works. Here 4.1 tons are put out per square metre of hearth; the open hearth shop of the Stalin Works puts out 4.06 tons per square metre. In Germany 5 to 5.2 tons and even 6 tons are put out per square metre. But what cultural advantage has the "Hammer and Sickle" Works, with its entire technical personnel just like that of any other works, and in what way are conditions there better than at other plants? Yet somehow Stepanov has managed to organize the work. Go and learn from Stepanov, comrades metal workers.

But our metal workers are very proud people: when you send them a new person, either an economic worker or an engineer, they immediately ask: "How long have you been working in the metal industry?" What difference does the long time you have worked in the metal industry make, if you worked badly?

When we sent Comrade Zavenyagin to the Magnitogorsk Works—he is a Communist engineer, whom the Ukrainian comrades know as a good Party worker and as having been active during the civil war—one would have expected him to be met with open arms in Magnitogorsk. He was asked how long he had worked in the metal industry. He has not worked in it for any length of time, because he was born too late (*laughter*) but he has not done badly. (*Applause.*) The time he has been



working in the metal industry, by the way, is not so little either. The Party will train young cadres, will help them and lead them ahead. (*Applause.*) Incidentally—and this all our Party organizations must know—our young engineers often meet with scant welcome. We must train new cadres, and new cadres are our engineers. They must be taken care of, they must be given good conditions in the factories and plants, so that they may be able to read, to think, to live like human beings; but very often this does not happen. This does not mean, of course, that everything a young engineer, a Communist, may happen to blab out be carried out. Nothing of the kind. There are plenty of fussy people among them who may turn out to be no good, but as a whole, they are *our* generation, they are *our* technical intelligentsia, who must be supported, helped in their growth, and be taught. Whoever can do this will achieve success. At the “Hammer and Sickle” Works Comrade Stepanov has succeeded in organizing his young and old forces in such a way that things have gone well.

Let me quote one more example. We have a syndicate caled “Spetsstal.” The automobile and tractor industry is proud of its achievements, but if we had not high-grade steels we should have no automobile and tractor industry. The cost of the high-grade steels which we are using at present is put at more than 400,000,000 rubles. If we had to import these steels—400,000,000 rubles annually—we should fall into bondage to the capitalists. This branch of production has been organized by our young specialists, who showed that they were able to attract the old specialists and to manage this work. I think the “Spetsstal” Syndicate ought to be held up as a model of the work of our trusts.

What did they do? They invited Professor Grigovich, a man who is undoubtedly an expert on high-grade

steels; they invited Engineer Subbotin—a factory “wizard,” a man who knows factory work inside out; they invited three or four engineers, who had been foremen and heads of departments in the Krupp Works; and when they have to fight against non-fulfilment of the plan in a certain works what do they do?

They bring this bunch of engineers to that factory, explain things and they set the works in order, Grigorovich gives a lecture to the workers and foremen, Subbotin pokes about an open hearth furnace or a rolling mill. The Germans with their customary precision inspect everything and explain how the trouble should be remedied. And all this is organized by our young engineer, Comrade Tevosyan, the head of the “Spetsstal” Syndicate. A great deal of work in the production of high-grade steels has been done by the Ural Metallurgical Works of the “Vostokostal”; the Lisvensky and Nadezhdinsky Works have thoroughly mastered the production of high-grade steels.

Rolled Metal. The “Red October” has shown good examples of rolling mill work. Take the time machinery stands idle. In the rolling mill it stands idle 7 to 9 per cent of the time, whereas the average for all the works of the “Stal” trust is 21 per cent. For example, our open hearth furnaces stood idle 27 per cent of the time, while in Germany and the U.S.A. they are idle 18 per cent of the time.

That is our trouble. It is not that we have no technical possibilities, but that our work is poor. And we must bring our work up to standard. Our managers, our plants have shown examples of good work. All our managers and plants must follow them, then the program will be fulfilled.

## 7. *New Centres of Industry Have Been Created*

Comrades, many years ago at a meeting of representatives of the national minority republics, Comrade Stalin raised the question of creating new proletarian centres of industry. And if you look now you will see that we have created centres of industry in almost all of our republics.

If we consider the figures of the distribution of the gross output of heavy industry in the various districts and the proportionate output of the latter for 1930 and for 1933, we get the following picture: the increase in output for the whole Soviet Union during this period has been one of 78 per cent; for the R.S.F.S.R. it is 87 per cent; for the Ukrainian S.S.R.—55.7 per cent; for the Transcaucasian S.F.S.R.—62.3 per cent; for the White Russian S.S.R.—203 per cent; for Uzbekistan—59 per cent; and for Turkmenia it is 1700 per cent. If we take the remaining districts of the R.S.F.S.R., we find the same thing: the districts which had practically no industry are now becoming industrialized.

Further, Comrades, at the Sixteenth Congress of the Party Comrade Stalin and the decision of the Congress raised the Urals-Kuzbas problem. Comrade Stalin has said in his report that the solution of this problem has been transformed from a dream into a reality. This reality is expressed in the following figures: of the 21,000,000,000 rubles invested in capital construction in heavy industry during the course of three years, 5,000,000,000 were invested in the Urals-Kuzbas District. Five billion rubles! And comrades in the Urals complain that it is too little.

Coal: in 1930, 6,000,000 tons were mined, but in 1933—14,700,000 tons, *i.e.*, there was an increase of 142 per cent in the quantity extracted in the Urals-Kuzbas Basin



in the course of three years, while the total increase in the country was 53.8 per cent; in 1930, 908,000 tons of pig iron were smelted in the Urals-Kuzbas District; now 2,000,000 tons are being smelted—an increase of 106 per cent in three years, while the increase in smelting in the country as a whole has been 42 per cent; in 1930, 1,800,000 tons of iron were mined, now 4,480,000 tons are being mined; in 1930, 300,000 tons of coke were produced, now—1,600,000 tons. In 1930, the basic chemical industry in the Urals-Kuzbas District produced an output valued at 24,800,000 rubles, now its output amounts to 67,200,000 rubles; and so on.

Thus the Urals-Kuzbas District mines one-fifth of the total quantity of coal produced in the U.S.S.R., and 30 per cent of the total quantity of ore extracted, smelts over a quarter of the total quantity of pig iron, puts out a sixth of the total quantity of coke and almost a quarter of the total output of the basic chemical industry of the U.S.S.R.

Thus, as you see, the problem of the Urals-Kuzbas District raised by the Sixteenth Congress has been solved, and solved pretty well.

How did we study the resources of our country during these years? In 1913, the total coal deposits were put at 220,000,000,000 tons, of which the deposits suitable for industrial use were absolutely negligible; in 1933, we have 1,200,000,000,000 tons, of which 21,400,000,000 tons are suitable for industrial uses. The explored coal deposits of the U.S.S.R. are five times as great as those known in 1913. In 1913 Russia had 3 per cent of the world's known coal deposits; in 1933 the U.S.S.R. had 15 per cent including such titans as the Kuznets Basin which contains 400,000,000,000 tons of coal.

In the oil industry we have the following figures: On January 1, 1933, the total deposits amount to 2,427,000

000 tons, 330,000,000 tons of which form the industrial reserve. The U.S.S.R. possesses *over a quarter* of the world's total oil reserves of 9,350,000,000 tons. Besides, new fields have been discovered in Baku and Grozny, the Turkmenneft (Neftedag) and the Sterlitamak fields, and exceptionally large oil reserves in the Urals-Emba District. In 1913, the total deposits of iron ore were set down as 2,000,000,000 tons; in 1933, we have 9,900,000,000 tons, 4,000,000,000 tons of which represent industrial reserves. Moreover, enormous deposits of iron ore quartzites have been explored, which formerly were not explored at all; they include the Kursk Magnetic Anomaly, a reserve of 200,000,000,000 tons. The U.S.S.R. occupies first place in the world for iron ore deposits, possessing about half of the total world deposits.

The total known copper deposits have grown twenty-four fold since 1913, and the industrial reserves—twelve-fold. In 1933 the total deposits amounted to 16,000,000 tons and the industrial reserves to 6,000,000.

### *8. We Must Inculcate Respect for Our Labour and Our Products*

I have said, comrades, that tempo is the whole point. What tempo did we have in the development of industry? If we compare the tempo of the development of our industry with the tempo of the development of industry in other countries, we obtain the following picture. How many years did the foremost capitalist countries take in covering the distance which the U.S.S.R. has traversed during the last three years? Take coal—the United States of America increased its output of coal from 45,000,000 tons to 76,000,000 tons in the course of nine years; Germany increased its output from 47,000,000 to 73,000,000 in the course of thirteen years; and our

country increased its output from 48,000,000 to 74,000,000 tons in the course of *three years*. Take pig iron—America increased the quantity smelted from 12,600 tons a day (annual mean) to 21,000 tons in the course of seven years; Germany increased it from 12,500 to 20,000 in the course of nine years; our country accomplished this in three years. The same applies to the generation of electric power; Great Britain increased the total power generated from 8,500,000,000 to 16,000,000,000 kilowatt hours during the course of ten years, while we in the course of three years increased it from 8,300,000,000 to 15,900,000,000 kilowatt-hours. Germany took thirteen years to double the output of its machine-building industry. The U.S.S.R. did it in *three years*. And so it is with everything.

This tempo has provided the solution for the problem of the defence of the country. I shall not speak of defence, I shall not quote any data; I shall only say that no comparison can be drawn between 1930 and this year. I could tell you how many tanks we produce, how many guns, how many machine guns, aeroplanes, and everything else—but I shall only say that last year we supplied our artillery incomparably better than in 1932.

And if these pigs' snouts force us to mobilize our whole industry to arm our Red Army, I think we shall fulfil this task best of all the tasks that we have fulfilled. (*Applause.*)

About quality. The quality of our output leaves a great deal to be desired. And very often this is so, not because we do not know how to work and cannot do it properly, but as the result of outrageous carelessness and negligence. I shall quote three examples.

Our plants built and installed a splendid portable crane for the "Magnitka." The crane isn't working, it has not been working for six months. Those who installed



it did not bother about it, did not find out the reason why the crane was not working.

Another example. The Kramatorsk Plant built a crane, a pretty good crane, for the Kuznetsk Plant. The crane has not been working for several months. The Kramatorsk Plant has not taken the trouble to send someone to see what happened to the crane.

At the Verkh-Isetsk Plant in Sverdlovsk I saw an electric furnace built by the Electrozavod, not badly built either. But the mechanism does not work, the pinions are placed at such distances apart that the teeth do not engage. And nobody has taken the trouble to go and see why this is so.

The managers of our industry still have no respect for their own output, their own labour. Every shabby foreign capitalist, every factory owner, has his trade mark on his goods and sees to it that its reputation does not suffer. But we, to whom the Party has entrusted this enormous number of plants, has entrusted such giants of production, concern ourselves very little with our trade marks, with our factory "label," as far as quality is concerned. After all, when you have given the managers a drubbing, they put things right and do their work pretty well. The workers in our machine-building industry have shown that there is literally not a machine that they cannot build. And they are building them pretty well. They can do it. Therefore we must devote the most serious attention to the quality of our output, in order to prevent such cases as we still have now, when people care only about getting their output off their hands without giving a rap what that output is like.

*The amount of metal used up in our plants is atrocious—often 20 to 30 per cent is wasted in drilling.*

I have already spoken, comrades, of the utilization of labour power, of our enormous reserves. I shall not re-

peat what Comrade Stalin has said about our shortcomings; but not for the reason that they cannot be illustrated by a great many examples. We must take what Comrade Stalin has said as our instructions and get rid of these shortcomings in the shortest possible period of time. That will be the best reply we can make to Comrade Stalin.

The Second Five-Year Plan confronts heavy industry with big tasks—to double its output, to double its capital investments, to supply transport and the light, food and timber industries with all the necessary equipment and machinery, finally to complete the reorganization of agriculture and of the whole of national economy, to strengthen still more the defence of the country, to develop the production of articles of general consumption and to remove all defects in the sphere of economic organization which exist in heavy industry itself.

These are not small tasks, comrades. But I think that with the base which we have now we shall fulfil this Five-Year Plan.

When we entered upon the First Five-Year Plan period, Lenin's question of "who will beat whom," the question of the creation of a heavy industry, the question of the collectivization of agriculture, faced us and still awaited solution. Now, when we have entered the Second Five-Year Plan period, these problems have already been solved. We have created a heavy industry, we have collectivized agriculture, our cadres have grown during these years and we have more knowledge and experience than we had then.

What, then, can stop us, what can prevent the fulfilment of the Second Five-Year Plan? Nothing.

Our Party, the party of Lenin, has fulfilled the greatest task under the most difficult conditions. And now, when it is armed with its own powerful technique and

its own cadres, this Party will fulfil, and honourably fulfil, the Second Five-Year Plan.

Long live the Seventeenth Congress of the Party of Lenin!

Long live the leader of our Party, the great disciple of our great leader Lenin—Comrade Stalin! (*Loud prolonged applause culminating in an ovation. All rise in honour of Comrade Orjonikidze.*)



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