

Those who Built STALINGRAD

AS TOLD BY THEMSELVES

Foreword by MAXIM GORKY

Drawings by FRED ELLIS

MOSCOW-LENINGRAD

**CO-OPERATIVE PUBLISHING SOCIETY OF FOREIGN WORKERS IN THE
U.S.S.R.—1934**

This is a STC — SPC — DD(CP) publication.

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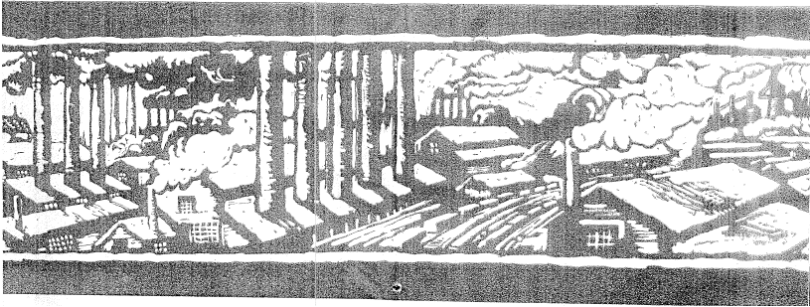


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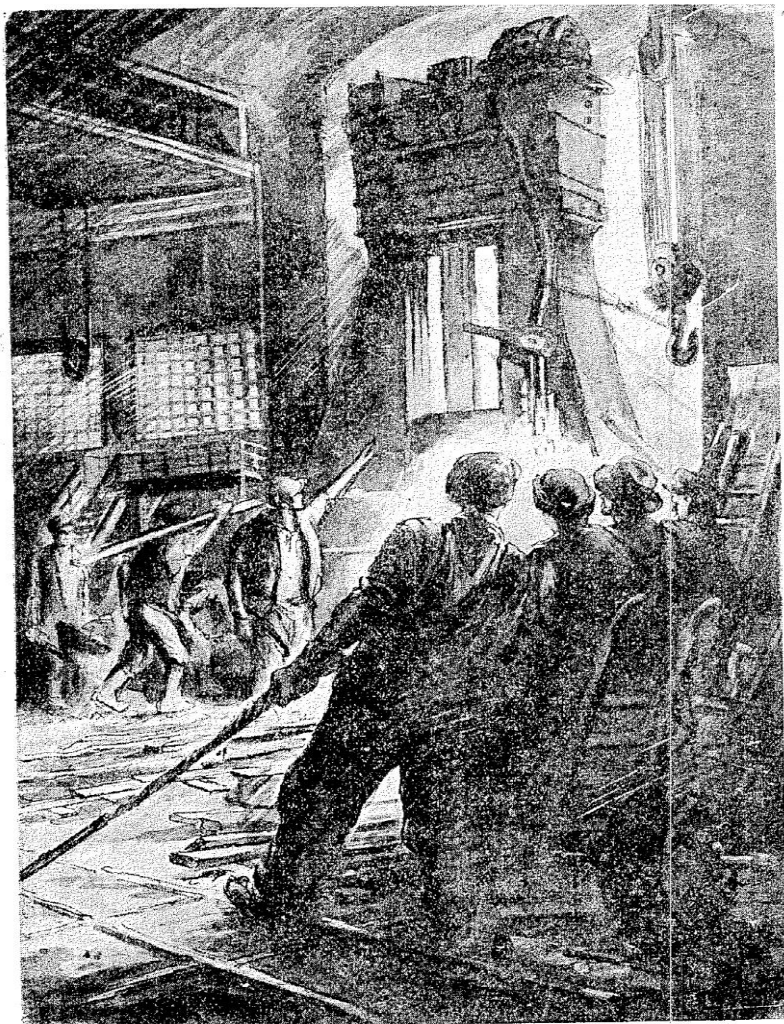
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*A happy new year!
This interesting book
is a little illustration of the surroundings
in which I spent three of the best years of my life.
Hope you like it—Ivy
1/1/'35*

THOSE WHO BUILT STALINGRAD



"And She Weighing 120 Tons!" (See p. 80.)

Those who Built **STALINGRAD**

AS TOLD BY THEMSELVES

Foreword by
MAXIM
GORKY

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MOSCOW-LENINGRAD
CO-OPERATIVE PUBLISHING SOCIETY OF FOREIGN
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“There is Much Simple Bolshevik Truth in This Book”

From a Foreword by MAXIM GORKY

Without danger of “overpraising,” I say of this book with assurance: One of the most interesting and novel books which have appeared in our literature for the last fifteen years.

The Siberian Tregubenkov, a blacksmith like his fathers—the American Louie Gross—the Mordvin tribeswoman Mémé Kérémé—the manager of the Plant, Vassily Ivanov, the son of a brass-founder and grandson of a feudal serf—the worker’s daughter Alevtina Khloptunova—the young Soviet engineers and others—thirty-two persons in all *, not excluding the jovial American, Rollo Ward, who so completely “acclimatized” himself among them, have sketched a vivid picture of that stupendous construction work, the Stalingrad Tractor Plant. None of them are men of letters, and yet they have succeeded in writing their life-stories in such a way that I, a man of letters and a reader, see how Terkul-Khan learns to operate a complex machine, how a former guerrilla fighter weeps for joy when the Plant starts to work, how Khloptunova instructs her pupils, teaches them to handle the machinery carefully.

In general the book gives me, as a reader, a clear idea of how thousands of young people—of whom “only a few had reached the age of twenty-five”—lived, of the conditions in which they worked.

* In the original Russian book there are thirty-two stories. Fourteen stories, which are typical of the rest and which are of greatest interest to the foreign reader, have been selected for the English edition.—*Ed.*

I saw this youth “on the field of action” in 1928, when the huge bare expanse was broken only by the towering iron skeletons of the future Plant, being created by the energy of this youth amid thunderclouds of dust, amid the deafening crash of iron, amid the crunching and grinding of stone-crushers and concrete-mixers.

It was very hard to conceive that the ant-like bustle of little people was capable of clothing the desert with iron; it seemed as if, perhaps, there would not be enough iron, and not enough strength either. Well, there was enough of both! And this fact, together with many others, once again confirms the conviction that our youth has strength and to spare for carrying out the whole plan of socialist building in the Union of Soviets.

The authors who write here do not conceal their shortcomings; they show how the shortcomings have been overcome, how a consciousness of the social and state meaning of labour has arisen in the individualist.

The book contains much good simple truth—the truth of strong hardy men and women—Bolshevik truth.

“Yes, we broke machines,” one of the authors relates, “broke them, of course, not only because ‘youth is unpractical’ and overconfident, but because the most complex machines had come into the hands of uncouth country folk.”

In this book the story is truthfully told of how this youth “couldn’t do it” and then “learned how,” learned to “respect the job,” fell in love with the process of labour, with their machines, with their Plant. “I miss the Plant more than I do my home,” writes one of the authors, and the reader does not doubt that this is truthfully said; the Plant has become a second and “wiser” home to the author.

It is indeed natural that all the authors, and probably also hundreds of their comrades at work, should be so attached to the Plant, should have fallen in love with it, as with some mighty and graphic realisation of the energy of youth, as with a monument which they themselves have created.

“Those who built Stalingrad” show how the Plant, despite all difference of languages, teaches unity of feeling and thought. “Those

who built Stalingrad” show us—in miniature—that simple and wise path which the proletariat of the Union of Socialist Soviets is taking towards its great and splendid goal—the organization of a classless society and of the brotherhood not only of all nations of the Land of Soviets but a real, active brotherhood of the proletarians of all countries. We see from this book how quickly the collective labour of the proletariat-dictator, led by the Party, unites people of different nations, not levelling or effacing individuality in the slightest degree but opening before each one broad possibilities of developing his abilities, his talents.

Having read this book, the non-Party youth of the Union of Soviets will see how these people have built the Plant and how the Plant has re-educated these people. Honest and sensible persons will probably understand that a Soviet factory is a school of socialist culture and not a capitalist slaughter-house.

MAXIM GORKY

CONTENTS

“THERE IS MUCH SIMPLE BOLSHEVIK TRUTH IN THIS BOOK”	7
FROM A FOREWORD BY MAXIM GORKY	7
COMRADE STALIN’S MESSAGE OF GREETING TO THE WORKERS OF STALINGRAD ON THE DAY OF THE OPENING OF THE TRACTOR PLANT, JUNE 17, 1930:.....	13
THE LIFE OF A LEADER.....	14
VASSILY IVANOV, CHIEF OF CONSTRUCTION AND FIRST MANAGER OF THE PLANT	14
1. THE FLEET, THE FRONT, THE PARTY	14
2. DECIDING THE FATE OF TRACTOR CONSTRUCTION IN THE SOVIET UNION	28
3. AMERICA	51
4. LEARNING TO WORK THE PLANT	59
I TELL MY SONS: “YOU GOT TO STUDY!”	78
S. KRASAVIN, <i>RIGGER</i>	78
I WANT TO KNOW ALL ABOUT METAL	90
F. A. KHLOPTUNOVA, ASST.-FOREMAN OF THE MACHINE ASSEMBLY SHOP	90
O. K.....	103
ROLLO WARD, FOREMAN OF THE GEAR- CUTTING DEPARTMENT.....	103
A MORDVIN TRIBESWOMAN	111
MÉMÉ KÉRÉMÉ, ASSEMBLER IN THE MACHINE-ASSEMBLY SHOP	111
GAUGE WORM	116
LOUIE GROSS, CHIEF OF THE TOOL SHOP	116

EARTH.....	148
I. S. PASCHENKO, CHIEF OF THE EARTH-MIXING DEPARTMENT OF THE FOUNDRY	148
A TRACTOR EVERY FIVE MINUTES.....	163
S. M. TALALAYEV, SHIFT FOREMAN ON THE BIG CONVEYOR.....	163
FROM ERRAND GIRL TO BRIGADIER.....	177
A. M. SIROTINA, BRIGADIER IN THE CORE- MAKING SHOP	177
MY LIFE.....	191
P. I. KONOVALOV, ASST.-CHIEF OF THE TRIMMING DEPARTMENT OF THE SECOND FOUNDRY.....	191
THE KID BROTHER.....	213
T. A. FANDYUSHIN BRIGADIER IN THE LIGHT FORGE SHOP	213
“WHAT THE HELL!”	224
G. REMIZOV, <i>DIE FORGER</i>	224
“LOOK AT THE CONVEYOR, HONEY!”	233
FRANK HONEY, TOOL-MAKER; AMERICAN SPECIALIST.....	233
WE STRODE TWO HUNDRED YEARS AHEAD.....	245
K. E. TREGUBENKOV, FORMER SECRETARY OF THE PARTY COMMITTEE, NOW MANAGER OF THE PLANT.....	245
POSTSCRIPT	270
BY Y. ILYIN AND B. GALIN.....	270

Illustrations

“And She Weighing 120 Tons!”	p. 4
“In a One-Storyed Hut We Found Makhno Lying Wounded”	p. 24
“We Only Just Escaped Being Locked Up”	p. 124
“That Was the Work of the Ku Klux Klan”	p. 126
“The Moulding We Did by Hand”	p. 180
“Either Quit the Komsomol or Get Out!”	p. 198
“Mind You Don’t Die Now!”	p. 199
“Our Hammers Had Long Hafts”	p. 249

**COMRADE STALIN'S MESSAGE OF GREETING TO
THE WORKERS OF STALINGRAD ON THE DAY
OF THE OPENING OF THE TRACTOR PLANT,
JUNE 17, 1930:**

Stalingrad, Tractorstroy, Ivanov:

Greetings and congratulations on their victory to the workers and leaders of the first tractor giant in the U.S.S.R. The fifty thousand tractors which you are to give the country every year are fifty thousand shells blowing up the old bourgeois world and paving the way to the new socialist order in the countryside. I wish you success in the fulfilment of your program.

Thanks to our teachers in technique, the American specialists and technicians who have rendered help in the building of the Plant.

J. STALIN

The Life of A Leader

VASSILY IVANOV, Chief of Construction and First Manager of the Plant



I. THE FLEET, THE FRONT, THE PARTY

I saw the plant for the first time on the morning of February 2, 1929. It was hanging on the wall in the *Gipromez* * office—the pictorial design of the Stalingrad Tractor Plant. It was all there, as in the flat of your hand, just as it stood before me in real life one year later. In the foreground was the foundry and the forge; then the machine assembly shop, and in the background the tool shop. The solid walls of the foundry rose sheer above all the rest. The black stumpy smokestacks of the central thermo-electrical department stood out on a background of bright blue sky. I stood for some time looking at the forge roof swelling up like the crest of a wave and the smooth bulging roof of the machine assembly shop. And the green trees, thick with foliage, and the bushy undergrowth threw out straight, long, lifeless shadows.

* State Department for Planning of Metallurgical Plants.—Ed.

Everything was clear and vivid in the design. But we were still confronted with the job of convincing people of its possibility and getting it approved—a job which had to be done at an open session of the *Gipromez* that evening. . . I swung open the massive door and went out into the street towards the canal, where the snow lay thick on the ice. Slowly I made my way through the town and saw around me the places where in former days I had begun my working life.

There was the Aptekar Island—I knew it well for I had once worked at the Duflon plant, and here was the Vyborg district where I had wandered from factory to factory in search of work. I recognized the streets, the canals, the houses, the workshops. This was my city, the city where I was born and had learned to stand firm on my own legs.

My grandfather had been a feudal serf; my father a brass founder. My childhood memories were of cellars in the big, brick houses of St. Petersburg. It was always dark in the cellar and you could see the legs of the passers-by flicker past the window and throw a passing shadow on the walls. . . After I had finished studying at an elementary school, my father said it was difficult to keep me fed and clothed, so at the age of ten I was sent to a military and naval school. I learned all about mines at Kronstadt: I studied electrical engineering and the main principles of wireless telegraphy and learned something about the force of inflammable materials—gunpowder, pyroxilin, fulminate of mercury and the composition of fuses. Our teacher was a famous professor, Popov. From time to time he would drink too much and then he would pace rapidly up and down between the black school desks and complain that Marconi, the Italian, had stolen his idea about wireless telegraphy. He would come to a halt at the blackboard and expound his idea to us, making chalk sketches on the board all the time. He told us in detail about a charge which would magnetise electrodes, about long waves and intermittent waves. Marconi had snatched world fame from him, and he could never forget it.

In 1902 we operated with the Popov radio apparatus and got results. We had two ships lying only about 70 cables lengths apart

and conversation was carried on between them by wireless telegraphy. These were the first, incomplete experiments.

Life in the fleet was hard and severe. Two days of the week we washed the linen and on those days were on our legs at four-thirty in the morning. Once a week we swobbed the deck, and then we had to get up at four o'clock. Only on Sunday were we allowed to get up as late as five-thirty. In 1904, I was serving on the "Europa" as junior mine-instructor, and we mutinied. The officers had been pinching the provisions and feeding us like pigs. We refused to accept the filthy food, lined up on the quarter-deck and presented our demands. They threatened to have us arrested and punished, but they did not risk trying it and contented themselves with reducing us to the ranks. I was reduced from the rank of mine-instructor to that of able-bodied seaman, second grade.

They had a primitive, rough-and-ready way of training us. Once they were teaching us how to lay mines at sea and a Whitehead mine which we had laid refused to go off. So I dived into the sea and swam off to catch it. I came alongside of it on the windward side and carefully lassoed it. The whole trick was to catch it without releasing the safety-catch of the mine, otherwise it meant being blown to smithereens. This sort of mine-hunting most certainly taught us something.

On holidays we idled around the back streets of Kronstadt. When afloat we got the traditional glass of vodka every day. We were made to sing in the church choir and to make our confessions to the priest. It was a hard life, boring and monotonous. In 1905 I was serving on the "Voyskovaya," a mine-layer, and they kept us out at sea so as to prevent us hearing about the revolution. But we heard about the mutinies on the "Pamyat Azova" and the "Potemkin" for all that. And from this on we were kept pretty well informed of what was happening.

At the age of twenty-three I was transferred to the naval reserve and started work on the Nikolayevsky railway as an electrician. I had to regulate and repair the arc-lamps. When the day workers went on strike for better wages and the introduction of paybooks, I joined

them and presented economic demands on their behalf. I was fired for that and deprived of the right to work again on the railways. During these years I had been attending evening classes at the polytechnical institute, for I wanted to become a technician in some special line. These classes didn't entitle you to any diploma but I went for the sake of the knowledge I got. After nine hours work I would hurry away to my class and there study chemistry, higher mathematics, mechanics, the resistance of different materials and so on. But when I got fired from the railway I no longer felt up to studying. For a year I tramped about St. Petersburg, blacklisted, until at last I found work at sea, as an electrical fitter on a dreadnought in the Baltic fleet.

What was it that determined my political bent? I had taken part in all the strikes that had come my way. In 1914 we had the first strike in the Baltic fleet, a strike against war. We struck for two weeks, and when the strike was defeated and they began to break into the houses of the ringleaders and throw us into jail, I left my work and got a job at the switchboard in a paper factory at a little place called Antropshino. I kept moving from factory to factory to avoid being mobilized for the war. It was on Aptekar Island in the Duflon electrical engineering works that I first heard a Bolshevik address a crowd. That was when Murza spoke out against the tsarist government and called upon all to fight against the war.

He said:

"Isn't it all the same who it is that grinds us down—the Russian tsar or the German Kaiser? Both are oppressing the workers and both must be overthrown."

Murza openly called for an uprising, and at the end of his speech he said goodbye to us and took up his stand at his lathe, waiting to be arrested. The gendarmes came for him and they led him out of the factory and out of our sight.

Once as I was taking a new amperemeter to pieces I noticed that on its case there was a German trade mark: "Made in Germany." I read the words aloud and turned to the receiving officer.

“Seems as though the German bourgeoisie love Russia more than their own fatherland, doesn’t it?” I said.

“Does that interest you?” replied the officer in an idle tone.

“Yes, I’m curious.”

“If you’re so eaten up with curiosity, I can send you to the front. Then maybe you’ll meet a German officer in battle and can have a talk with him. He’ll explain it to you.”

I didn’t want anything of the sort, so I kept my mouth shut. Very soon after this I changed my job again and went to work at the Siemens-Halske low-power works on Vassilevsky Island, St. Petersburg. In spite of my being a political “black sheep,” I had a good qualification at my finger-tips and it was comparatively easy for me to change my work. Later on in Kharkov I worked on electrical installations as a fitter, and it was while I was in Kharkov that the Revolution took place. I did not begin to live a full political life until the Revolution. Like thousands of other workers I had always read revolutionary literature, had mutinied, gone on strike,

and had never asked myself twice whether I should go on strike or not. I began life in earnest in 1917. In the spring of 1917 I suggested to the workers of the electric power station where I worked that we should down tools. We stopped work for two days. The manager of the factory asked the workers:

“Why didn’t you show up at work?”

“Vassily Ivanov said we weren’t to,” the men replied.

I decided that the time had come to fight in an organized fashion and I joined the Party. The Revolution took place in Kharkov on March 3, 1917. I was thirty-two, and full of energy.

I felt I must fight amongst the rank and file. Among my painful recollections there came to my mind the memory of how the Cossacks flogged us in St. Petersburg. “Why should the Cossacks, why should every dirty bastard have the right to persecute and flog people?” I asked myself.

I remembered the day when we had all lined up on the quarterdeck of the cruiser and the officers had threatened to have us

arrested. And so when the Revolution broke out, I flung open the factory gates and led columns of workers singing through the streets.

Forty workers joined the detachment of the Red Guard which I had organized. I made them run, I taught them to shoot, kneeling and lying. I drilled them until they protested:

“Vassily! For Christ’s sake! D’you think you’re bringing back the old regime? . . .”

In November 1917 I set out for the front as commander of an infantry detachment escorting an armoured train. Our first fight against the White bandits took place at Lozovaya station. We drove the enemy out and occupied Sinelnikovo and Pavlograd, turned back again to Sinelnikovo and pressed on to Ekaterinoslav, giving the enemy a lot of trouble. Our arrival decided the issue of the battle between the Soviet troops and the Whites. On December 27, 1917, the town was in the hands of the Soviets. After this I sometimes served with the infantry, sometimes on an armoured train and sometimes in the Cheka.

Up to April 1918 I was commandant of the Ekaterinoslav Railway Junction and disarmed a Cossack company which was returning from the Western front to the Don. They were going by the train in the direction of Pyatikhatka and our task was to divert them along the second Ekaterininsky line, where a convenient spot had been chosen for our outposts to wait and disarm them at the proper time. I made myself hoarse arguing with the Cossacks and telling them they ought to go in the direction of Ekaterinoslav: “Make straight for Ekaterinoslav,” we urged them. But the Cossack officers objected, thinking we had made preparations for them to be met in Ekaterinoslav. They drew their revolvers and forced the station master of Pyatikhatka to let them through along the second Ekaterininsky line. This was just what we wanted. “All right,” I said, “we’ll submit to armed force.” Before the battalion started off, we raised the alarm, tore up the track before the train, stopped them near the Trubny works and called upon them to give up their arms. One company gave up its weapons and we let it through to the Don; the rest of the Cossacks refused to submit, jumped out of the cars hurling

their equipment on to the track, mounted their horses and swam them across the Dnieper without surrendering their arms.

On April 9 I was registered as a fighter in one of the Communist detachments. We retreated from Kharkov together with the government of the Donetsk and Krivoy Rog region. The Germans were advancing into the Ukraine and they attacked us close to the small village of Kostyanovsk. We carried the bodies of four of our comrades to Lugansk, and our detachment joined forces with that of Klim Voroshilov. We were the last to evacuate from Debaltsevo, taking all we could with us and blowing up the railway equipment. We coupled several engines together and rushed them off to Rostov. I worked as mate to one of the engine-drivers who was a Left Socialist-Revolutionary. I stoked, cleaned the wheels, and kept my eye on the Socialist-Revolutionary, and so at last we got to Tsaritsin.

From July to September 1918, when I was a plenipotentiary of the All-Russian Central Executive Committee and the Central Committee of the Russian Communist Party, I fought against counter-revolution in Vologda. I made it my task to get all the foreign diplomatic missions removed from Vologda to Moscow, since they were causing harm to the revolution. At the head of a detachment of Latvians, we searched the monasteries in the neighbourhood. In one of them, a Latvian asked the monk to open the door to a secret passage. The monk refused to do so, and one of the men broke the lock of the iron door with a hand grenade. However, the explosion shattered a magnificent altar. The monks sounded the alarm and surrounded us on all sides. We were hardly able to break our way out. That day I was expelled from the Party for disorderly behaviour, and the same night I left for Moscow. In Moscow they asked me why the hell I had thrown up my job, and I was immediately reinstated in the Party. So I went back to Vologda. I remember how Chicherin used to coach me over the telegraph as to how I should behave towards foreign missions:

“Be cautious. Don’t give way to any provocation. Remember that they are extra-territorial. Avoid complications. . .”

I stood beside the telegraph operator reading the white ribbon of the message as it came over the telegraph. But the missions were continually abusing their extra-territoriality. The Whites rallied around them, and they armed the Polish legions, defended the priests, the merchants and factory owners. They had to be got out of Vologda some way or another. Late one night I called Comrade Sverdlov, the President of the All-Russian Central Executive Committee, to the wire:

“Vassily Ivanov speaking. The missions must be removed from Vologda. Instruct me to do so. The central government does not know anything about it, it is not responsible for my actions. We can say that there is unrest in Vologda, that we cannot answer for their lives and are therefore sending them to Moscow, where the central Soviet government is situated.”

The telegraph operator tapped out the unexpected reply:

“Lenin speaking. Quite right. Act as you suggest.”

Very soon Vologda was free of them.

But before leaving Vologda I met some Baltic sailors. A detachment of sailors was passing through Vologda bound for the Archangel front, and on the railway track they saw a truck full of their comrades, arrested by Eiduk, the assistant chief of the Kedrov Northern Expedition. The Baltic men recognized their comrades and, without stopping to discover what was wrong, got excited and surrounded the truck. Eiduk came out to them. They dragged him off to a meeting and seemed just about ready to tear the harmless Latvian to pieces.

I saw the harassed faces of the men attached to the expedition and hastened off to the meeting. The sailors tried to prevent me from speaking, but I let my voice go, and forced them to listen.

“I’m a Baltic mine-instructor,” I shouted. “You can trust me.”

They grumbled a bit but no longer interrupted me.

“Whom do you want to shoot? A Latvian, Eiduk the Bolshevik? He has already been sentenced to shooting once. In 1905. By a tsarist general. Eiduk is branded: he has two bullet wounds.”

Eiduk was standing by my side. I was agitated and mechanically tore his coat apart, revealing his bare skin with the marks of the wounds to the crowd. I was of the same salt as the sailors, we understood each other excellently, and a few minutes later we had come to our decision—those who persisted should remain under arrest, and those who repented should go to the front with the detachment. This was done.

After that I went to Moscow and during the insurrection of the Socialist-Revolutionaries I guarded the Second House of Soviets. I was then sent to the Urals front as chief of a group of detachments sent on a special mission. An armoured train headed the detachments; it had been taken from the Astrakhan front. On our way, as we crossed the steppes, we often found signs of treachery. We found the bodies of Communists who had been thrown down the wells; Lindov and Mayorov, members of the Revolutionary War Council, had been killed. The traitors had been putting forward the slogan: “Long live the Soviets and down with the Communists!” We drove them from the steppes into the depths of the Urals and we restored the front from Ozinki to Uralsk and posted Communist units at all the keypoints on the line. So we managed to hold out until the arrival of the Ivanovo-Voznesensk weavers, armed and led by Comrade Frunze. I handed over my section of the front to him and went back to my work in the Cheka. The Whites seized Orel in September 1919. I remained in the rear of the enemy with the provincial Cheka reconnaissance and we never stopped giving them trouble until the day I entered the town with the returning Red units.

I was always being given Party work to do. I was appointed secretary of the Kharkov provincial committee and of the Ekaterinoslav organization; but each time things got difficult at the front and our enemies pressed in around us, I was sent off to some section of the fighting front against counter-revolution. In May 1920, during the Polish offensive, I hunted down the Ataman Maximovich in the Dikanka forests, and on August 1 I concluded a truce with Nestor Makhno. We had been chasing him for three thousand kilometres; he dodged us all over the Ukraine and swept over the

steppes in two-wheeled carts, but he refused to give us battle. Comrade Frunze, the commander-in-chief on the southern front, sent me as plenipotentiary of the Revolutionary War Council to the Makhno detachments. Together with five Cheka men I was to enter into negotiations with Makhno and conclude the third, decisive truce. When we left the compartment of the commander-in-chief, neither Comrade Frunze nor Comrade Mentzev nor Comrade Balitzky nor we, the six Communists who were setting out to meet Nestor Makhno, had any particular hope of our ever returning.

Makhno's delegation was waiting for us at the nearest station to Starobelsk. They turned us out of our compartment and went on to Kharkov, while we got into two-wheeled carts and so came to Starobelsk, the Makhno headquarters. In a one-storied hut we found Makhno lying wounded; his heel had been smashed by a bullet. He was surrounded by armed men, their heads adorned with shaggy fur hats dashingly cocked over one ear. He rose to meet us—a stocky man with long hair—and jokingly, almost coquettishly, he said:

“Who'd have thought a bullet would ever get me!”

I stayed with him for three months, working to demoralize the commanders who surrounded him. I met my own comrades very seldom, for they did their best to keep us apart. But I got on well with the Makhno men and could walk among them as if among my own comrades. The decisive moment for undermining the Makhno detachments came when the Soviet Government issued its decree to grant land to the peasants for a period of nine years. Our negotiations were crowned with success. Makhno set out for Perekop against Wrangel, although later he went astray again and betrayed us.

Towards the end of 1921 when the enemy had been driven back, the Party took up the work of restoring the ruined industry of the Ukraine. I was transferred to work on the Ukrainian Metal Trust and became chairman of the Collegium of the Chief Board of the Metallurgical Industry. Under the control of this Board there were eight hundred plants which at that time produced only spades, forks and cigarette lighters; throughout the whole of the Ukraine the furnaces were raked out.



In a One-Storied Hut We Found Makhno Lying Wounded

First we had to get the mines and pits working, for they were idle and the ore we needed was lying untouched. Then I toured the plants of Lugansk, Ekaterinoslav and Yuzovka. It was not so long ago that we had passed through these parts in armoured trains, on carts, on horseback, or in the ranks of the infantry, and now we had another task before us—to restore the blast-furnaces, open-hearth furnaces, rolling mills and machine shops so that they would once more start producing. We blew in the first furnace at Yuzovka. We got it going with great difficulty—it seemed almost to have forgotten how to smelt ore. Twice we made a hash of it and ruined the smelting, but we tried a third time, and had better luck—the furnace turned out pig-iron again at last! I saw the first dazzling torrent of iron pour forth from the Yuzovka furnace.

Even in those days I dreamed of creating combinats of plants, in which all processes of production would be concentrated, right from the raw material to the finished product. This was my big technical idea, but it met with no support in the Supreme Council of National Economy, and I was released from my work and sent to study. For three months I spent almost all my time at home surrounded with books. I had almost forgotten how to study and found it terribly difficult, but still I managed to pass my entrance examination and entered the Kharkov Technological Institute. “At last I shall master the sciences which I began to study so long ago in St. Petersburg,” I thought.

Everything went excellently and within a year I had passed in higher mathematics, draughtsmanship, physics and chemistry, and was preparing to take my examination in the resistance of materials. But I had to interrupt my studies, for I was sent to Moscow as a delegate from the Kharkov Party Conference. The Twelfth Party Congress was taking place. Ilyich was absent, for he was ill. Trotsky came out with his theses about the scissors of national economy and the “democratic centralism” group supported his idea. During the discussion I spoke heatedly against the “democratic centralism” group and when I returned to Kharkov to take my examination in the resistance of materials, the Party proposed that I should go to

Ekaterinoslav to work as secretary of the regional committee. I tried to put it off, but it was suggested a second time. So my studies were once again broken off and I left for Ekaterinoslav.

The Ekaterinoslav region had a deficit of several billion, and the furnaces were idle. I lived for three months in one of the villages there and listened to what the peasants had to say. I learned their needs and studied their moods, and when I came to the town itself, where there were many furnaces standing idle, it was easy for me to discover and understand the origin of the laxity that had infected some of the workers. The raising of the rates of output at that time was a blow at this laxity, and this brought us into collision with the petty-bourgeois slackers who were scattered among the workers. At the Bryansk Works it was announced in the morning that the rates of output were to be increased, and by evening the mill-hands on the ninth drive went on strike in protest against the new rates for increasing the productivity of labour. The mill-hands went from shop to shop calling upon the men to protest against the new rates; they played on the narrow departmental interests of the workers, and were up in arms at once when we began to introduce order and proletarian discipline.

The ninth drive stopped work and called on all the workers to do the same. The men in the open-hearth furnace kept on working. We were all faced with the issue—either we must give in, and be led by the petty-bourgeois feelings of the workers, or we must hold out and abolish slackness. The board of managers issued an order: all the workers of the ninth drive to be dismissed and a new group of honest workers to be taken on, who held the interests of the Revolution dear.

In the morning the whole of the ninth drive came to the factory gates, but they were not allowed in. They stopped the workers of other shops, they shouted down the manager when he approached them. White-haired Litovko, the chairman of the factory trade union committee, went among the crowd, explaining to them the meaning of the fight that was going on, but they beat him and threw him down to the ground. They were ready to crash the iron gates, but we gave the order that they were not to be let in. In the evening a meeting of

delegates from the workers of the whole factory was held in the class rooms of the Factory School. The ninth drive kept together and remained at the gates awaiting the results of the meeting. In my speech I mentioned the case of Litovko, the white-haired worker and Bolshevik.

“When they struck Litovko,” said I, “they were striking at the Soviet Government. Litovko was defending the Revolution against the laxity of the petty bourgeoisie. The new rates are a barrier against anarchic methods of production; anyone who attacks them is overturning this barrier.”

“That’s all very well, but why was the order to dismiss us hung up?” somebody interjected.

I sought him out among the crowd of workers and replied:

“In the name of the Revolution we cannot consider the special interests of the workers of one section among whom self-seekers have wormed their way in. A few years ago, in 1921, the Party called upon the working class to help cleanse the Party of swindlers and hangers on. Now the Party is helping you to get rid of the petty bourgeoisie who have got into industry and who don’t relish discipline.”

A delegation left the meeting and went to the gates to inform the ninth drive of the decision that had been arrived at:

“The workers have accepted the new rates. We are going to begin selecting new workers for the ninth drive.”

A day later this drive had started work.

Soon after this I was transferred to work in the State Trust of the Non-Ferrous Metals Industry.

I was sent to Sadon where I got the mines working again and had to fight against certain specialists, who later turned out to be wreckers, and who tried to prove that there was nothing in the lead and zinc deposits in the neighbourhood of Vladikavkas. We started building the first ore flotation plant; we planned and began to lay a suspension railway from the ore-beds to the concentration factory; we did some reconstruction work on the furnaces in the metallurgical

works in Alagir, and began the work of restoration in Zangezur. At the end of 1926 I was transferred to work in Moscow.

As a member of the Collegium of the People's Commissariat of Labour, I went round the insurance offices in Moscow. Together with the unemployed, with their sacks on their backs, I stood in queues and learned all about the bureaucratic methods for which the unemployed cursed us so heartily. It was only later that we began to give out unemployment benefits through the factories, and so unburdened the labour exchanges.

Then I was sent off to Orel as president of the regional executive committee. Time was when the Orel province was noted for its good race horses and its miserable hovels, for the wealth of its landlords and the poverty of its peasants. I now began to organize chicken farming and to create co-operative horsebreeding enterprises. When I left Orel I could boast that the eggs which we delivered for export purposes weighed as much as 80 grams each. Not such a bad weight after all!!

Then I was summoned to Moscow where they proposed that I go to Stalingrad.

“Go ahead, you must build the Tractor Plant.”

2. DECIDING THE FATE OF TRACTOR CONSTRUCTION IN THE SOVIET UNION

On September 22, 1928, by order of the Supreme Council of National Economy, Vassily Ivanovich Ivanov was appointed chief of the construction job of the Stalingrad Tractor Plant. From this on my life was closely linked up with the life and destiny of the Tractor Plant.

As I sat in the train I had time to ponder a little and sum up all that I had done during my life since 1917, when I had taught the workers how to make a bayonet charge in the factory-yard, up till September 22, 1928. I knew pretty well how to throw a hand grenade and handle a rifle—five years of civil war had taught me that. Then I

had helped to blow in the first blast-furnace, and later on I had taken part in reconstructing the non-ferrous metal industry. Now I had to build a plant, build it up right from the very beginning. "I wonder what this new job will be like," I thought.

As yet I had no conception of the size of the work; I had not even seen the design or the area on which we were to build. But what had been proposed to me coincided with my dreams of a combinat in which everything moved forward along the shortest possible road—from the raw materials right up to the finished article. The production of tractors must be done in just this way and no other.

Later, I saw the site on which the future plant was to be built. It was a vast melon-field. And although I had as yet no clear idea of what tasks I had to tackle during my work, yet no sooner had I seen the site than I firmly made up my mind to build the works and to see the machine, the first machine, come off the conveyor. There was a great deal to do. The area had to be levelled. It had to be fenced off. I had to get in touch with the necessary people, perform a thousand essential workaday tasks.

I went into the grey building of the Leningrad Gipromez, where I was to see the draft of the future plant, and said to the scientific worker who chatted with me:

"Show me all the designs you've got..."

It turned out, however, that the design of the Plant had been dispatched to America for examination and the chief engineer and all the heads of departments had gone there as well.

I immediately set off for Stalingrad. I arrived at midday and went straight to the Party committee. I was obliged to tell them that things were going badly with the construction plan although there was a lot of talk about building.

"Perhaps something is being done here in Stalingrad?"

"No, things are pretty bad here as well," they confessed.

I went into my construction office. Draftsmen were sitting at their desks and working out plans for the output of 10/20 h.p. tractors. Then I went to the edge of the town, along the valley across

the steppes to the “Red October,” the metallurgical works alongside of which our builders were living in a two-storied house.

“What are you doing, comrades?”

I met Ponomarev there. He was the engineer in charge of the construction job. At first he was not inclined to talk to me.

“What are you doing, comrades?”

He drily and briefly explained to me that he did not like people interfering in his work, that he considered himself a sufficiently well-trained engineer to know what it was necessary for him to do.

“But things aren’t going forward; there is nothing done,” I said stubbornly, trying to make him face the question squarely.

The conversation took on a sharper tone, and without beating about the bush I gave him to understand that everything to do with the construction job was my business as well, and that I intended interfering in everything.

“It is my job, the duty of the man in charge of the construction job. Do you understand?...”

We were standing up all the time we talked. Ponomarev unhesitatingly showed his cards. He gave me to understand that the new chief had dropped out of the sky as far as he was concerned, and that he still did not know whether he wanted to work with me or not. I took a seat and for a moment said nothing. “It looks as though there is a boss already,” thought I, “and you, Ivanov, are quite superfluous.”

“I was brought before the court,” said Ponomarev suddenly, “I was supposed to have been a wrecker, and I got an eight year sentence. But I still consider that the sentence was unfair.” He had noticed that I was looking at him in astonishment, and he continued: “Yes, unfair. If you, the new chief, think that the court has corrected me, then you are deeply mistaken. I am the same Ponomarev who works in the only way he can work.”

He was silent. There was nobody in the room. I was the first to break the silence, and asked mechanically:

“It didn’t help?...”

“No,” he confirmed.

“All right. All this has nothing directly to do with the business, however. Sit down and tell me what has actually been done...”

It didn't take him long to explain, and it was not difficult for me to understand that he had not yet managed to do anything.

“Why didn't you say that in the beginning?” I said on leaving, and hurried away.

I now had to see the construction site itself and then I would have a clear idea of the whole state of affairs. I waited for a horse, but they hadn't got used to Ivanov yet—they had sent no horse, so I continued on foot. It was well on into the autumn and I walked seven kilometres along the rainwashed road and—strange to say!—the disappointment and anger that had accumulated during the day gradually left me, and I began to laugh at all that had happened. “The horse didn't turn up. Ponomarev got no help from the court—all this is a good omen for me. If this is how they meet me,” thought I, “then the work will go forward.”

I came to the site. An open steppe. The ground was not fenced in, but was littered with stacks of building materials. There were two brick houses under construction on the western side. There were also two wooden barracks and a wooden dining room. My eye took in all this at a glance. Then I saw some fellows lying around among the windswept, sun-scorched bushes. I approached them and asked:

“Are you the builders?”

They calmly replied that they were.

“Why are you idling?”

I couldn't control myself; I swore and began to drive them off to their work. They rose unwillingly and moved away, casting glances at me. The chief mechanic, Lagovsky, met me at the barracks and conducted me over the empty site. There was no equipment at all for unloading; the whole outward appearance of things showed that the work had been going on in a leisurely way.

“Where's the water?” I asked, cutting short Lagovsky's explanations.

At first he failed to understand.

“Where’s the water?” I repeated. “The water, you understand? Have you brought the water up to the site?”

He said that it wasn’t such an easy thing to get the water up.

“Well then, excuse me, but in that case there is nothing for you to do here. We want water, water, and not your explanations. Perhaps it would be better for you to take up teaching? What do you think, eh?”

He admitted that as a matter of fact he was more interested in teaching, that he got a lot of satisfaction out of teaching.

“Very well,” said I, as I left him. “But kindly remember that we need water and the quicker the better.”

Late that night I returned to the spot. I was thinking it all over—there was no water, the lads were lying around in the bushes, there was no equipment for unloading, there were no fences enclosing the site, the steppe stretched far away into the distance on all sides...

Such were my first impressions of the people and of the site on which a great work had to be started as early as possible. In addition, the plans for 10/20 h.p. tractors did not suit us. The vast, boundless fields of the Soviet farms producing grain required powerful machines; the 10/20 h.p. tractors were no good, and since our hands were not tied in any way and we had a healthy appetite, it behoved us to build a plant which would produce more powerful machines, and so we needed a different design, a new one. The government commission consisting of Tolokontsev, Ptukhi, myself and a representative from the Gosplan * had fixed upon a 15/30 h. p. tractor. We fixed the annual figure at forty thousand tractors, reckoning that our plant should be no smaller than the McCormick Works in America.

In the long run all was decided by the Central Committee of the Party. The Central Committee followed most carefully the whole work of planning and building the Plant and of learning to operate it;

* *The State Planning Commission of the U.S.S.R.—Ed.*

it guided this work. When the commission brought in its proposals, Comrade Stalin himself, pencil in hand, checked up our calculations of the annual capacity of the Plant and of the type of tractor we intended producing. After a very careful verification had been made, the figure was definitely accepted at forty thousand 15/30 h.p. tractors.

Ivanov was suddenly called to Moscow. He left in a hurry, and a few days later we received an express telegram from him, as follows: "Hold up laying foundations stop plant being re-planned for 15/30 tractors comma forty thousand two shifts." It was proposed to send twelve engineers to Moscow to re-plan the plant. They were given one day's notice.

The same day twelve of us left for Moscow, with the necessary materials. Rooms were ready prepared for us there. In the evening we were already drafting the new plan. (From the memoirs of engineer Charnko.)

I told them all about the new instructions of the Party.

"How many days shall we have to make new calculations?" they asked.

"Twenty-eight!"

Guided by Engineer Smirov, they began the tedious work. A 15/30 h.p. tractor was brought into a house in Yuchkov street; there they took it to pieces and began their calculations. They worked excellently and finished at the stipulated time.

We had to face a regular pitched battle at the sessions of the Gipromez which took place between February 1 and 4, 1929. Chief engineer Kagan was the reporter defending the new design as a whole, and the experts reported on each department. The chief engineer, speaking quietly and evenly, conscientiously explained the technical principles of the new design.

"All products must be of a standardized, interchangeable type, manufactured on a mass scale."

I glanced around me. On the walls hung drawings of our Plant. These were only rough outlines, as yet mere sketches of plans.

“The production processes must be condensed to the utmost limit.”

We were seated in a big hall; at the long tables, covered in green baize, were seated big specialists. I scrutinized their faces; it was they who were to decide the fate of the design. How engrossing it must all be for them!

They did not interrupt the speaker.

“The work must go forward as rapidly as possible.”

They listened to the end while the experts reported on the various departments and then the initiative fell to them. They began to talk; some of them rose in their seats; one after another they put their numerous questions, taking first the machine-assembly shop, then the forge, all the separate departments, the whole Plant. There could be no doubt that they had begun to pick our design to pieces. This was quite clear to me. They sat at the long tables, with their backs to the design of the future Plant; they went for our design, jeered at it, and smashed all our conclusions. Several times I wanted to get up and say that they were interpreting it all wrong; but I controlled my feelings. They should be allowed to say everything they wanted to. When Kholmogorov spoke I glanced at him hopefully. In 1911, when I was an electrician, I had attended his lectures in the polytechnical school and in those days I had looked up to him as a progressive sort of man. Those who had spoken before him had said that the idea of American speed did not suit us, that we had not got tools or high-grade metal or the necessary people. What would he say, I wondered. My feelings got the better of me when he got up and described our design of the tool shop as one that was not scientifically sound.

“A ridiculous undertaking,” said he, winding up his speech.

Well, the first thing I had to do was to make things clear. They had torn the design to shreds. All right, but what was needed was clarity, clarity above all else. The argument in general turned on the fate of tractor construction in the Soviet Union and of the methods to

be used—Europe or America? What road were we going to take—European speed or American? The latter required that we be determined and bold and take some technical risks. The experts had said enough. Now I could speak at last. I spoke twice.

“This is the line we want to take,” said I the first time. “Let us be clear on this point. In the first design, with which you are acquainted, you will observe the following underlying ideas: the building and development of a plant capable of an annual output of ten thousand tractors, dependent on the existing circumstances, without the adoption of any extraordinary measures, by way of evolution and gradual approximation to the new industrial situation. This is the path of European technique. This is what we had before; but this is not what we ought to have now. Permit me to say that today the situation in the country has changed considerably; in the past you were forced to build plants within the limits of the existing state of economy and on the Russian level of technique. That is one thing. At that time you were allowed to get two or three steam-hammers from America, and it is uncertain whether you would have been allowed to buy the third in America or whether you would have been recommended to take a German one as a substitute, or even one of our own Russian machines. We have now set ourselves the aim of building up a tractor industry. And it is quite a different matter now. (Please don’t interrupt.) Now we have to take all the best there is in America in the sphere of technique and transplant it to our country; we have to establish it firmly, to master it. This is the way we should look at this question. This is where we should begin arguing.”

It seems that I hit the mark. They became excited and the discussion continued. I understood and made allowances for those more sober voices which, without any preconceived ideas, counted up all the demands put forward by our Plant—steel, iron, ball-bearings, carburettors, magnetos, etc. This was all true, and I said:

“The Party demands that we build a plant on the lines of the best American works. And we must reply: All right, we shall do it. You want forty thousand tractors a year? We accept it. Thirty horse power? Very well. Working two shifts? Excellent. In Stalingrad?

Right; we will set to work at once. And then there are our demands. On the basis of the technological process which has been proposed, we shall immediately require you to set about organizing works to produce malleable iron, high-grade steel, ball-bearings, magnetos, tools and so on.”

But they had other thoughts in their minds and they expressed other ideas.

Engineer B. concluded his evasive speech with the following declaration, which was clear enough:

“I feel it necessary most emphatically to stress the fact that none of us wants to take the road of technical backwardness at all; on the contrary. But I consider that not one of us will insist upon, or agree with, any attempt to take something American and replant it here in Russia; this would be futile, because we shall never get American productivity. If we are going to build, then we must be sure that we are going to get the productivity planned for works of this kind.”

They had no confidence on this point; they were still thinking on a Russian scale.

Professor B., one of the oldest specialists in the work of forges, began his speech with great dignity, sincerely believing in everything that he said. He said as clear as daylight:

“Men of science and industry are gathered here, but can any one of us take upon himself to say that what has been proposed to us is capable of fulfilment in the period of time which you have permitted yourselves to suggest?”

He turned to me and added in a nettled tone:

“Why should we deceive ourselves and, what is more, the government? Why should we do this? You have said that we ought to introduce American methods of work here in Russia. Just ask yourself how are we going to do this? Why, we shall have to send thousands of people there... [Ivanov, interjecting: Thousands, that is too many for us.] Why force us, when it is physically impossible to do it? You say: ‘We have been set this task.’ Anything can be set as a task.” He smiled and added meditatively: “Somebody’s imagination has set man the task of flying to the moon, but nobody has flown

there as yet. And you are proposing just such an unachievable task now. Why, it is impossible at the moment to dream of a ball-bearing works or a forge or a magneto works. We cannot do it at present, so why talk about it? Why such passionate demands: 'We must do it, we have got to get it done.' We should talk not about what we must do, but about what we can do in our present situation." (He strongly emphasized the last phrase.)

I was astounded at the poverty of their imaginations. If this magnificent design of ours did not catch their imagination, then what on earth would do it?

The session was being held in the second month of the first year of the Five-Year Plan. It was 1929, the great turning-point on all fronts of socialist construction. The country was casting off all her age-long, "Russian" backwardness. The start had hardly been made, the site barely chosen for the new Plant, but it was with confidence in the morrow that Stalin's words rang out: "We shall become a land of metals, a land of automobiles, a land of tractors." And yet these men were marking time. They were all harnessed to Russian technique, trailing along in the leading strings of Europe, and that was why many of them—some of them sincere enough in their own way, others with ulterior motives—got angry and started heckling us, taking a sceptical attitude to the plan for going full speed ahead along the line of American technique. My anger had abated, and I considered it my duty once more to bring clarity into the dispute, to explain to them the line of the Party on the question—not only of what we can do, but what we must do.

"The line of our Party is to catch up and outstrip the capitalist countries in the technical and economic sense. [I explained all this patiently.] Everyone must fully grasp this point. This line demands that we do not pass through all the intermediate stages of technical development that capitalism went through; where it is possible to establish American methods of work there should be no question of delaying the process and going the European way. This is clear, I should think?... In our first plan the percentage of conveyor production as compared with the total volume of work was to have

been forty-six. And now we are insisting on having the highest possible percentage of conveyor production. Finally we demand that for rate-fixing purposes American rates be taken for the speed of output, allowing only a 20 per cent reduction by way of reserve. However, some people object to this. They tell us we cannot get above 60 per cent of the American rates. They tell us that in America a gear is stamped with one blow, whereas in our country it takes three. But what is the decisive factor? You know that in Germany, for example..."

Here Professor D. interrupted me.

"And so," he said, "you want to build a factory which will require ten million poods of metal a year...?"

"Just so."

"And, if you remember, we have only three million poods..."

"... of high quality metal. Yes, I remember all right."

"Metal of such quality is not to be had in all Russia."

"One correction—at the present time. It's not to be had at the present time."

"I accept your correction. But then, as you may be aware, we shall want not men but cart-horses to handle your American hammers. Where shall we get them?" He stepped out from behind the table and came towards me. "I ask you: Where shall we get them?"

He was putting me off the main point. I turned away from him, muttering:

"You're starting to talk about biology now, but please remember that's not my business."

"Maybe you want to breed a new race of people?"

"Yes! That's our program! To continue. In Germany, then, a drilling machine makes 1,500 revolutions a minute, whereas in America it makes 2,000. Clearly, we have to work at the highest speed possible..."

Well, we won. At the end of the second session sixty-two experts "approved our design in the main." That evening I invited the experts to a banquet in the Evropeisky restaurant. I told them:

“The design is accepted, so now let’s drink to it. It’s worth it after all.”

On February 21 we presented the design to the Presidium of the Supreme Council of National Economy. Some of the engineers went to America to gain experience, while others came with me to the construction site. As I sat in the train I had spread out before me the drawings that had hung on the walls in the Gipromez building. I kept thinking of the arguments we had during sessions at Gipromez and mentally continued my war of words with Professor D., finding ever more and more arguments in defence of our plan—the plan which opened before us the way to the mastery of American technique. There were still many imperfections in it. It was only the beginning, but still one thing remained indisputable—we had chosen a high rate of speed. The main principles of our plan had a clear and inspiring ring about them:

The whole productive work of the plant must be strictly regulated down to the last detail, must be reduced to the uninterrupted working of a gigantic clocklike mechanism. The materials must be homogeneous, of approved brands and standard quality. It is necessary to bend all efforts towards the achievement of an uninterrupted process of production, proceeding with a rhythm or tempo depending on the quantity of parts produced. The production processes must be condensed to the utmost limit. The work must proceed at the highest speed.

I arrived in Stalingrad at midday.

At that time—in the early spring of 1929—the construction job was not going any too well. The State Industry Building Trust had laid out the machine repair shop during the winter but had not got as far as the roof, having stopped work halfway. The water supply which had been laid on in 1928 proved too weak and new pipes had to be laid. The construction office and the designing department were situated a long way from the site, at different ends of the town.

During the winter of 1928–29, we began to form cadres of workers to lead the construction job and organized courses of instruction for building foremen. This was a period of collecting and accumulating forces. It was enough to glance at the various works that had been started at different ends of the construction site, and the mere sight of this desolate and disjointed picture compelled you to act, to seek for a solution of the difficulties.

There was a danger that the design which it had taken us so much trouble to get accepted would remain a dead letter, a design on paper only, because it came into conflict with the sluggish inertia of Russian building methods. In our country, building operations were always suspended during the winter! Those who had scoffed at our design and been so reluctant to “approve it in the main”—those people had full justification for triumphing over us now, for the engineers and technicians whom we had with us on the construction site were of the breed that is accustomed to stick to the beaten track and whose attitude towards America was one of contempt. We Russians aren’t so green either—that was their attitude. And here again, just as at our conference, there was only one question at stake—that of tempo.

Every day I bicycled out from the town to the site and saw how slowly, at what a pitiful speed, the construction work was progressing—the work which even at that time had already riveted the attention of the whole country and of Comrade Stalin. Here was the first plant of the Five-Year Plan being built and it was being built so slowly that I went into a rage. Nothing was arranged efficiently. There was no decent road from the site to the town, the men were living in tents, loafing around with nothing to do, and on top, in the administrative office, life went on calm, serene and untrammelled.

Despite all the outward rudeness of Ivanov, people liked working with him. Of course, they feared him. He sometimes behaves himself with extraordinary rudeness, shouts and bawls, but if you stand up to him and answer back, he goes off, thinks it

over and, if your arguments are well founded, he agrees with you. (From the memoirs of the mechanic M. M. Yudin.)

I will now describe the disposition of forces up there, on top.

Engineer Popov was distinguished by one remarkable faculty: when anyone came to him with a sensible suggestion, he contrived to ask so many questions, to render the suggestion so unintelligible, that the applicant would begin to lose his faith in his own idea and hasten to give it up.

“Think it over well,” Popov would counsel him as he left the office.

In one camp were the engineers Ponomarev, Schacht, Sivenko, Nekhayenko and the senior inspector who was nicknamed “Fatty.” They conducted themselves with great dignity—a hardened group who stood in serried ranks and assailed all those who did not side with them.

The architect Rumin could not get on with Ponomarev, engineer Gorsky could not get on with him either and as for me, I did not want to view the construction job through Ponomarev’s spectacles and I declared war on him and his group.

What sort of a crowd were they?

Ponomarev—an old domineering engineer and contractor with years of experience, a man who would take risks but only in order to exalt himself, to show his “ego.” Schacht—a civil engineer of the old school, a White guard under his skin, an educated man, knowing his own value. He had no notion of taking risks or of using modern methods. He thought the whole construction job ought to be left to take its normal course. His reasoning was as follows: What’s the use of hurrying forward, why jump from the fourth story when you can come down by the staircase—that’s a better and safer way.

Well, I gave them a test in the matter of rapid tempo. The American engineer, Calder, was bringing a draft of the construction. I met with bitter resistance when I raised the question of the necessity of our assimilating American building experience.

“Calder is coming,” I told them, “and we’ll have to begin mastering American methods.”

Schacht shrugged his shoulders and said it was no good him learning from the Americans—he had his own experience already. I continued my offensive, I presented them with a demand—to shorten the periods fixed for the construction. Ponomarev answered this with a refusal.

“It’s unthinkable. Why, we haven’t got all the designs yet.”

However, Calder was coming with his draft, and I continued to press my offensive.

Ponomarev did not wait for his arrival. The very next time he met me, he made me the following declaration which he had obviously thought out carefully beforehand:

“I cannot profess theories which are alien to me and I am not changing my principles. You want to start building the legs without knowing what the body is going to be like and then to build the body without knowing what sort of a head you’re going to put on it. No, that’s not my principle. I have too much respect for myself as a construction engineer for that.”

He was incapable of speaking otherwise.

“Well then, we’ll have to part company. We are going to build the Plant.”

In July Calder arrived with the draft. He walked into my office the very first hour after his arrival.

“When are you going to start work?” I asked him impatiently.

He went over to the window.

“Today,” he answered.

That same day he went to the site and inspected everything for himself. Schacht was overjoyed when he found out that Calder was dissatisfied at the lack of mechanization.

“Take a look at our workers,” I advised Calder. “They’re able to work.”

Again and again he went over the site, rummaging into all corners. He was astounded when he saw the work of our navvies. They showed amazing deftness, working in even ranks as they

shovelled the earth. Their spades glistened in the sun at one and the same moment. Calder couldn't take his eyes off them. He asked to be given the figures, and it turned out that one of our navvies removed an average of about ten cubic metres of earth a day; this included both the excavation and the carting away of the earth to a distance of one half to one and a half kilometres. "You can work with them," said Calder. "They work productively."

I openly put it to our engineers that they should learn from the Americans and imitate their methods. Engineer Gorsky was the first to break the silence of the meeting.

"I'm ready to go to school," he said.

I was delighted at this; Gorsky carried with him a group of young engineers.

After the meeting Schacht stopped him in the passage. He felt that the ground was slipping from under his feet and he began trying to win Gorsky round.

"Just think what you're in for ... Believe me, it amounts to jumping from the fourth floor. And besides, you're the only one."

Gorsky answered politely: "I call upon the others to follow my example."

To speak frankly, it seemed strange and incomprehensible to me why there was so much talk about these crazy tempoes. And I mentioned this to Comrade Ivanov at one of our meetings. I spoke right out and referred to my doubts. I got a rebuff for that—Ivanov called me a doubting Thomas.

He was wrong there, he didn't understand me. This is the third factory running which I am building. And I promised myself to work on the Stalingrad Tractor Plant to the last—that is, till I saw the first tractor come off the conveyor. Ivanov didn't understand me, and I then decided that on this construction job I would show my hand at building at this crazy speed ... This was where the difficulties began. You have to work according to the blueprint and under the direction of an engineer. But the rule is that between the engineer and the foreman there ought to be a technician. And we hadn't got a technician, which meant I had

to get my instructions straight from the engineer. And the engineer is an American and can't speak our language. Even the blueprint has something un-Russian about it. Such a state of things was enough to make anyone despair. But still I had promised myself to show that I was able to build at this crazy speed. So I discovered an international language—drawing. Everything I couldn't understand, I drew a picture of and showed it to the American with a question mark beside the drawing. The American smiled, found the place on the blueprint which had caused the confusion and pointed to it with his finger, saying "all right". And that way I managed to understand everything. (From the memoirs of foreman Solnyshkin.)

I understood perfectly well that I could do nothing alone. To put it crudely, you can't do the whole trick with money, even though money may go a long way. But in such a great cause as ours you can't get far with the bare ruble, you can't build a plant that way. If the strength of our Party lies in the fact that it knows how to choose and distribute people, to set them at the right work in the right way, then each one of us Party members on his particular sector of work ought to hunt out and to unite around him scores and hundreds of people having a heartfelt desire to help on the general cause, ought to be able to link up this cause with the interests of each. Solnyshkin's imagination had taken fire at the idea of seeing the first tractor come off the conveyor and this gave the clue to the success of our cause. Calder, it is clear, would have been powerless without the energy of Solnyshkin; he was drawn into our work from the other side.

Calder seldom stayed in the office. Tall and supple, with a grey felt hat on his head, he went over the building site without fuss or hurry, carefully watched the workers and in answer to his question—when would this or that job be finished, he invariably received the same answer from the head superintendent of the Building Trust:

“Next week.”

The first time he listened to this with some faith, but when the time was up and nothing was done, he called the superintendent “the

next week man,” and stopped asking him anymore. There were not a few others of his type in the Building Trust and they paralysed our work. Calder remarked that with such an organization as the State Industry Building Trust normal work was out of the question. He recommended one measure after another, but the “next week man” kept putting off the day of fulfilment. He came to me—tall, calm—and said:

“I’m not accustomed to receiving money for nothing.”

And he demanded that his contract be torn up and that he be sent back to America.

I was brought face to face with the urgent problem of organizing our work in a business-like fashion. Either the Building Trust must accept the dates we fixed for the completion of the various jobs and give us some real proof that they were doing so or we must take over the whole work as it then stood, together with the workers, superintendents and machinery. The Building Trust did not give in all at once.

The “next week men” were more accustomed to lengthen than shorten the period of performance. Orlov, the head of the trust, declared that it was impossible to build the Plant by the date we proposed. In my arguments with him I had to take a very sharp tone. Calder, with whom our engineers Gorsky, Gerasimov and Yudin sided, insisted on new methods of work; he proposed dividing up the whole site according to the shops that were to be built on it and beginning at once to lay the foundations under the iron structure of the shops, setting bolts in these foundations. This at a time when the structures were as yet only being got ready in America! Orlov and the “next week men” offered bitter resistance to the new building methods. No sooner did I arrive on the site in the morning than arguments arose.

That summer Ivanov wore a leather coat. He would arrive from the town on a bicycle. When he threw open his coat, you could see a faded blue shirt beneath it. The uppers of his boots were splashed with mud and he wore short stockings which were

slipping down over them. He moved about fast and noisily, getting into arguments, giving out directions. You could tell he was coming by the sound of his sharp raucous voice. (From the memoirs of the forestry expert Samokhotin.)

Orlov said that to mark out the ground and set the bolts in the foundations in advance was dangerous and altogether inadmissible.

“There is some element of risk—that I can understand. But why is it inadmissible?”

Orlov insisted. I took him to Calder.

“Our engineers are in some doubt,” I said to Calder, “and warn me of dangers involved in your methods of work. What can we answer them?”

Calder lost his accustomed calm. He uttered heated complaints, declaring that they had been working that way in America for some time now, that the method was correct and that not one single bolt would have to be changed from its place. He turned to me as he spoke. I turned to Orlov, Schacht and the Building Trust people who were gathered round them.

“This is his advice to you. I personally am in agreement with his methods.”

In their presence, stressing the words, I said to Calder:

“I will be very pleased if you will really show our blockheads the correctness of the American method!”

Calder listened to the translation and then said calmly:

“O.K. It’ll be done.”

heads the correctness of the American method.”

“Translate carefully,” I added to the interpreter.

“After a heated conference in Ivanov’s office one of the specialists, Schacht, burst out: ‘What the hell does he think he’s up to? It’s brazen impudence!’

“When this was translated to the American Calder, he interrupted the discussion, saying:

*‘My dear colleague, on a construction job an axe is needed as well as a file. He (indicating Ivanov) hits good and hard.’”
(From the paper The Struggle.)*

After that there began an exchange of letters between me and Schacht. This was an open declaration of war. We seldom met and avoided seeing one another, but I was perfectly well informed about all his doings directed towards preventing us from attaining the speed we had planned. All his moves were known to me. Our correspondence proceeded in the manner of a game of chess, each trying to checkmate the other. He still offered resistance and a group of discontented and injured people were still rallied around him, but on our side we had the mass of the workers, who in the last resort decided the question of tempo, and we were supported by the Americans and the engineers headed by Gorsky who adhered to them. On July 25, Schacht made his first move. He wrote to me:

In consequence of the changed conditions and circumstances in my work on the construction of the Tractor Plant, I deem it impossible for me to further continue work on the construction job of which you have charge and therefore ask you to release me from the obligations which I have undertaken and to dismiss me from work.—Engineer V. A. Schacht.

“Changed conditions and circumstances”—that was a bit hazy. I demanded clarity from him:

“Please state concretely what constitutes the change in the conditions and circumstances of work, excluding the removal of one or two persons.—Ivanov.”

Three days later he answered me in a long diffuse letter in which he dwelt at length on the “changes in those conditions and circumstances of my work in the construction of the Tractor Plant which have led me to the conviction of the impossibility of

continuing to work here.” He beat about the bush a long time before he put his objections in articulate form:

The adoption of purely economic measures in carrying out the work, without having sufficient equipment for this or, in particular, our own technical staff, I regard as a measure involving too great risk and one in which I cannot participate. As regards the American engineers, I have grounds for not overestimating the situation in this direction either... I consider that the positive qualities of American engineers, that is to say, their organizational abilities, rapid tempo, perfected methods and means of work, etc., cannot be displayed in our country to any considerable extent, since, in consequence of their lack of knowledge of the local conditions, means and possibilities, the part played by American engineers in industry reduces itself to the giving of groundless orders and the setting of tasks, but the carrying out of these tasks and consequently the responsibility for them will rest with our administration and technical staff.

He would not conceal from me, he said, that he was very tired, had doubts as to the correctness of the course we had taken, etc.

The course we had taken was correct and we did not change it. Schacht wrote to me: “Hitherto I have never had the need to resort to the aid and technical knowledge of engineer Calder and it is unlikely that I will in the future.” Meanwhile Calder was hard at work. He attended to the distribution of workers, tested the bolts which were set in the foundations, spent whole days on the building site. Schacht was swept aside by the force of circumstances. He waited two days longer and then appealed to Calder:

Confirming my statement made to the chief of construction regarding my desire to be released from work, I ask you to settle this question with the chief of construction and to release me from work not later than October 1.—Engineer V. Schacht.

Calder answered at once:

Sept.

17/29.

Your resignation accepted as per your letter.—Calder.

Schacht was obviously losing his power of resistance. He got flurried and hastily made one move after another. He still tried to hinder our work, but in my order No. 141 I proposed that he hand over all the business and property in his charge. The game was over. Schacht was beaten. We continued our work as before. Calder became chief superintendent of work with Gorsky as his assistant. They managed to find a common language in their work and got on well together. Right on the very construction site, amid all the noise and din, Calder would set up his little folding table, spread out his blueprints on it and open up a large yellow umbrella over it, casting a big patch of shade. This was his office and here we would meet and consult. Calder outlined the general organisational work, while Swajian, a very fine surveyor, marked out the building site. Gorsky accepted their principles of work and carried them into effect.

We had to place a guard over the pegs with which the site was marked out since they were more than once uprooted by those who were not in agreement with our tempo and methods of work and by those who wanted to work in the old “Russian” style.

I took the responsibility on my own shoulders and let Calder carry out this work as he thought fit. Some element of risk was involved in this, of course. We might go astray by forgetting one peg or by deviating a millimetre to one side; we might go astray if the measuring tape were at fault or if it were bent by the wind; we might go astray in placing the bolts or, finally, because the people were inexperienced. I calculated that if one or two of the eight hundred columns did not fit, then it would be easier to break up the foundations again and replace the bolts than to hold up the work, waiting for the superstructure to arrive. I put my trust in American efficiency. And we didn’t go astray after all! The calculations worked out perfectly right. On all the eight hundred columns we only

had to change two bolts and one or two rivets. The structure of the machine shop was put up in twenty-eight work days. That's what you call good going!

The machine assembly shop alone covers an area of four hectares and it is more than four hundred metres in length, so it was a difficult job to get all the bolts in their right places over such a large stretch of ground.

Feeling the extreme responsibility that was involved in the adoption of American methods of work, I did everything I could to help Calder and his group. I saw to it that the shipments of freight were delivered at the right time, plunged into the everyday work of storage and supply of materials, busied myself with the technique of rate-fixing. We succeeded in raising labour discipline to a marked degree. Calder made it his rule to come to work fifteen minutes before time and taught the whole staff of superintendents, engineers, etc., to observe the same punctuality. This in its turn had the effect of spurring on the workers. They saw for themselves the high productivity of the new system and became assured that their work was giving good results. They divided the work of concrete-mixing into separate processes; invented ways of transporting the building machinery, introduced mechanization, though of a primitive kind.

For the first time we began to synchronize operations along the whole front of construction work. The riggers, who set up the iron girder structure, were closely followed by the riveters, who came after them to rivet the girders; then came the bricklayers, who built the walls, followed by the carpenters, who put on the roof. The Plant grew—it was springing up before our eyes. The mere sight of such work on a large front, hitherto unheard-of in our country, had its effect upon the workers, impelled them to put on more speed.

Imagine the scale of such a work! The area of the machine shop was 40,000 square metres, that of the foundry 28,000 square metres, that of the forge 22,000 square metres. Tunnels intersected the whole plant. The tunnel beneath the machine assembly shop reaches a height of five metres. On November 7, 1929, some peasants, delegates from the conference of collective farmers in the Northern

Caucasus, came to see the machine assembly shop which was still empty. This shop covers an area of nearly eleven acres. They measured the iron structure, tapped the walls, climbed up to the roof and down to the tunnel. We held a meeting for the occasion. They had seen everything and convinced themselves that the country was building a tractor plant for them in good earnest....

I was getting agitated about the fate of the plan for the technological process and about the placing of orders in America. I began to get ready for my departure.

Sometime in October we, a group of comrades who were being sent to America, were released from work for four hours daily in order to learn English. Ivanov was learning with us. He would come to the class immediately after inspecting the building site, sit down at the table with a preoccupied expression and desperately begin to spell out English words. He regarded the study of English as a necessary business. Before long he was already exchanging some English phrases with Calder. (From the memoirs of the technician Gavrilov.)

I left for America in February.

3. AMERICA

In a black-painted, front-drive Cord car I intersected America in various directions. I had a license to drive the car. Seventy firms, one hundred factories in America were manufacturing equipment for our Plant. I was accompanied by engineer Kulikov and together we went from factory to factory and from city to city—New York, Pittsburg, Cincinnati, Milwaukee, Chicago, Detroit—and saw how the orders were being fulfilled. The draft of the technological process was being consulted by some big specialists and at the same time by the mutually competing firms with whom we had placed our orders for equipment.

Back in Stalingrad they were putting the roofs on the shops of our Tractor Plant so of course I began to bustle up the American firms who were producing equipment for the first section. They were obviously lagging behind in the fulfilment of our orders. At that time we had as yet no conception of the extent of the hitch that was caused by the slow fulfilment of the most urgent orders for equipment. I found engineer Kulikov, a most conscientious worker who had placed the orders and conducted the chief negotiations with the various firms, in a state of confusion. He sat beside me in the car and as we left New York, he stammered:

“It’s all up, I’m afraid... I’m sure the orders have got mixed up and the firms have cheated me... I order one sort of lathe and then I have a nightmare and think that I’ve seen a still better sort in my dreams... Curse them!”

We were obliged to exchange the equipment that we had previously intended having for another kind of different capacity and value. We were obviously getting behind time. We had made a blunder in concluding our contracts, for now not one of the firms was obliged to guarantee money compensation if the equipment was not ready on time. The Ingersoll Company contrived to conclude a contract according to which they got 75 per cent of the value of the orders without even starting on the production of the equipment. Oh yes, they were very friendly towards us, they were already beginning to feel the pinch of the crisis, and many factories were kept going entirely by our orders. Still many of them cheated us.

I went to see the head of Ingersoll’s. A healthy-looking, rosy-cheeked Swede, he smiled cordially and gave me his hand. I shook it and asked:

“How about our order?”

He started talking about other matters, asked what sort of impression America made on me, how I liked it here, how fast I drove my car.

“This is all very well,” I said to Kulikov, “but he doesn’t seem to have started on our machines yet.” And turning to him, I said:

“Let’s see at any rate the steel castings intended for our machines.”

He answered evasively that they were being cast in another plant. I said no more but began to go back to my car. He followed me, asking me for my impressions of America. I could control myself no longer but turned and told him he had been cheating us, calling him a scoundrel and using other strong expressions. The interpreter fell into confusion and didn’t know what to do.

“Go on,” I cried, “you’re not a young lady in her boudoir. Translate to him carefully what I said. Maybe that’ll have some effect on him. Let him do a bit of overtime work for a change.”

In order to produce a greater impression on the capitalist firms, I made use of the bourgeois press and published a letter in The New York Times, demanding that they should work efficiently and honestly with us. After negotiations with representatives of the various firms and after scanning endless blueprints, I spent my “leisure time” at the wheel of my car. We could hit a speed of 100 miles an hour in her. Kulikov was generally seated beside me and we felt at times as if the car was about to leave the earth.

We were on the broad highway not far from Chicago—Detroit was left behind us. I recalled the glistening glazed tile floor in the Ford plant and the 100 ton tipping open hearth furnaces. Carefully sorted iron charge was lying piled on the floor. Ford had been buying up ships for scrapping. Steel plates of one and the same brand of steel were pressed into blocks and put into the furnace. Ford was able to get exactitude, to obtain steel of a standard type. I reminded Kulikov of this.

“He has technical traditions,” he said.

Yes, that is true. We haven’t got them, we are only creating them as yet. In America no one hammers iron hoops on to wheels and the man who plies this trade has become an anachronism. In our country they are still hammering on the hoops, but we too are going to stop soon. I recalled the arguments in the conference at the Giprometz. How far removed from the modern world were those who wanted European rates of speed! The straight roads, the abundance

of machines, the whole technical equipment of this country convinced me of the correctness of the course we had chosen. The handicraftsman, I thought to myself, the artisan who is accustomed to work amid a whirl of driving belts, shutting out the light and making a senseless racket, will come into our machine assembly shop and he will be astounded at the sight of the spacious well-lighted hall, where there is no gossamer of belts above his head and where each machine has its own separate motor. The foundryman will stand in astonishment on the threshold of our new shop where no men are to be seen grovelling and digging in the earth. The smith, coming into our new high-built forge, will see the forging machines and the furnaces equipped with pyrometers. He is probably used to a hammer which he wields by hand! In my mind's eye I was already distributing the new lathes and units among the shops. I already saw them in action.

It was from America that I took the idea of planting the neighbourhood of the factory with grass and trees. Cleanliness in outward surroundings compels the worker to take better care of himself. Take a look at an American engine driver when his locomotive leaves the depot. He himself is always dressed as neatly as can be and his hand involuntarily caresses the cleaned and gleaming metal of his engine.

I fought to have the train stop further away from the Tractor Plant and to lay out a shady avenue in between. Let our worker, when he comes to work in the morning, have green foliage about him and fresh air to breathe into his lungs! That's a lot better for him than to have to bundle right out of a stuffy compartment into the shop where he works. I had the workers in mind, but another reason why I fought for having grass and trees was in order to save those precious machines from the fine dust which is wafted through the windows of the shop in summer; it penetrates into the dies, into the rubbing parts of the machines and wears out the equipment more effectually than emery. It is our job to lengthen the life of a machine.

The very first time Ivanov met me after coming back from attending the session of the Gipromes at Leningrad he asked:

“How about the grass and trees?”

That’s been entirely snowed under.” I answered. “They say there’s no time for that sort of thing yet.”

He said it was a disgrace and gave orders that work be started instantly.

“Get ready tools and materials for planting” he said. “We’re going to plant shrubs.”

In the spring of 1929 Ivanov gave orders to plant trees, grass and shrubs on the area between the Plant and the tram-lines and down the slope of the hill.

He demanded that I report to him every day how the work was going, how many workers I had, etc., and we managed to finish our plan of planting and watering by the stipulated time. At that time Ivanov’s office was situated in house No. 502 on the second floor. From his window he could keep an eye on all our work. When the work of planting was over, he suggested that we fence in well all that we had planted, but despite this the drivers still continued to drive their carts over planted area. I remember how every morning you would see Ivanov fling open his window and shout:

“Where the hell are you going to? Don’t drive over that and don’t walk over it either!”

We enclosed the area with barbed wire and Ivanov issued an order:

“Anyone who goes over the enclosure will be dismissed at once.”

In February 1930 the chief engineer sent for me and told me:

“We’ve received written instructions from Ivanov in America to plant a garden in the factory yard.”

He came back from America in the spring and at the very first technical conference, among a number of other demands, he insisted that trees and grass be planted over the whole factory area and in the workers' settlement. "*That's what they do in the States,*" said he. I asked: "*What shall we plant?*" He answered:

"Better thick grass, because trees obstruct the light in the shops." (From the memoirs of the forestry expert, Samokhotin)

We were picking the brains of the capitalist firms, taking from them the best that America had to give. America was working for us, for our new plants for which we were buying equipment, but we did not imitate America blindly: we strove to synthesize the achievements of American technique. As I went round visiting the various factories, I saw with my own eyes how the productive forces were outgrowing their narrow capitalist framework. The factories were working at one third of capacity, repressing their powers, crushing and constricting their exuberance of technical potentialities. And every time I witnessed this waste of accumulated forces, their piecemeal destruction albeit only in its first stages, when the factories were not working the full week, I thought to myself enviously: "If only we had these cunning machines, these lathes and automatic appliances, this splendid organization of production!" In 1930 all the open spaces in the American cities where automobiles were offered for sale were filled to overflowing with cars. Cars were being sold for a song. There were so many of them that their dark hoods merged into one black expanse. Thousands of horse power were standing idle in those places. But no one seemed to want this horse power. The machines were doomed to unemployment.

There remained one factory whose gates were closed to me. McCormick of Milwaukee did not admit me to his works. He had a long tradition behind him in the field of tractor building. His tractors were ploughing the fields of the whole world. He sat up and took notice when we began marking out the building site for the future plant on the banks of the Volga. But he laughed up his sleeve, for

after all, had not his grandfather, his father and he—the whole clan of McCormicks—spent dozens of years accumulating experience of mass production on the conveyor system? Nevertheless, when seventy firms began to work on our orders, he lost a little of his composure. We sent three of our engineers to him to study his methods of tractor building. For a long time he held them at arm's length from the factory and at last made them the offer: "Either you work a year with me or not at all." "Agreed," I told him.

It was impossible for me to go away without visiting McCormick-Deering of Milwaukee. But all my efforts were vain. Together with Kulikov, I made my way through the "Valley of Industry" where the tractor works lies, but we could not gain admission. Eventually Kuzmin, one of our engineers working at McCormick's, undertook to get us in:

I told my friend the foreman that the manager of the Stalingrad Plant was coming to see me. Ivanov arrived together with Kulikov in a front-drive Cord car of the latest model.

"Well, show us the plant," said he, turning to the foreman.

The foreman would only consent to give him a half hour's tour of the factory without stopping to inspect anything. They went from shop to shop and frequently stopped to look. The foreman would whisper to them to go on. Ivanov gazed in silence, while Kulikov, when he saw the splendid machines, would moan: "What a fool I was. We ought to have ordered that sort...!" Ivanov caught the foreman by the sleeve: "Come on, show us everything...!" Instead of half an hour, they managed to spend half a day in the works. (From engineer Kuzmin's memoirs).

When I saw the old shops, clustered so close together, the first thought that flashed across my mind was of the long years of accumulated tradition. But our advantage lies in the fact that we have straightened out the technological process of tractor production, have found a quicker way to make tractors. The sight of the McCormick

works once more involuntarily reminded me of the sessions at the *Gipromez* in February of the previous year. In embarking on our venture, we took as a basis for our calculations McCormick's figures of 30,000 tractors a year with 300 work days and nine hours' work a day. And working 280 work days a year we calculated that our plant would put out 40,000 tractors.

McCormick is older than we, the crisis has got him by the throat and already he is working only three days a week. And we are only beginning! All these irregularities in the way the shops are laid out—what are they but the result of long experiments and searching for the right way? Whereas we have taken the direct, the shortest course. I let McCormick know that I had visited his works after all. In his office I left my card:

V. I. IVANOV

Manager

Stalingrad Tractor Plant

Before my departure for the U.S.S.R., I called a conference of all our engineers and foremen who were working in American factories to gain experience. The conference was held at Detroit and they came there from all ends of America—from such factories as McCormick, John Deere, Caterpillar, Allis-Chalmers, Ford, General Motors—our own folks who were learning the art of how to organize mass production on the conveyor system. The majority of them were of the same age—not more than thirty. We exchanged our American impressions, and I told them of that straight, direct line to be followed in technique, the line which we were laying down in our country and which it behoved us to master.

I left for the U.S.S.R. at the end of May.

4. LEARNING TO WORK THE PLANT

The Plant was opened on June 17, 1930. The whole country sent its representatives to us; we went from shop to shop and came to the assembly shop at ten o'clock in the morning. Beside the iron belt of the conveyer stood the representatives of the Plant, the town, the region, and the country. Slowly it came creeping along—the dim form of the first tractor. At the moment when it came to the brink of the incline at the end of the conveyer, I was handed an express telegram. I read it out in great excitement. It was Comrade Stalin's telegram about our tractors being so many shells blowing up the old bourgeois world.

Did I at that moment forget that which had been worrying me? Our Tractor Plant was well and truly built, its walls rose firm and solid around us—and I succumbed to the general mood of enthusiasm and light-heartedness. One day, two days passed. The fact became clear that the Plant was open but not really set in operation. As is well known, the entire country was waiting for the machines, which were supposed to come off the conveyor at intervals of five minutes. The entire country was watching us. And as is equally well known, we only managed to turn out five machines during the first month and a half. That was all.

When the mists of jubilation connected with the opening ceremony had blown aside, we began to experience all the agonies of learning how to work the Plant. We entered upon the period of the Plant's infantile ailments—a period which according to the general tacit assumption was to have slipped by imperceptibly. But we got stuck. We were going through a difficult process and one which we were the first in our country to have to meet—the process of mastering the operation of modern machinery. And the reason why we got stuck is plain enough. We had never before had to master highly developed American technique. It was the first serious encounter.

Over two years have now passed since then and when I reflect on what was going on in this Plant of ours on which the country had

riveted its gaze, thousands of reasons occur to me. But one reason stands out above all others—the Plant was opened prematurely; that is to say, we spoiled those months during which we ought to have been setting the Plant in operation in a normal way. At the present time this is an elementary axiom for all factories. It was a lesson which we did not learn cheaply.

A conference of engineers and technicians heard a report of the manager. Ivanov said:

“Bare enthusiasm is a thing we have more than enough of. Maybe we ought to find a different term, some altogether bad term, for this quality. But anyhow it bears a strong resemblance to this sort of ‘enthusiasm’ when at the beginning of May, in answer to enquiries from Moscow, a telegram is sent off from here outlining the following program for the output of tractors: June—150, July—350, August—740, September—1,600. And this same telegram contained a demand for instructions as to where to send the tractors so as not to overload the transport system.

“Our entire misfortune consists in the fact that we have been swimming along on these waves of bare enthusiasm, both you and your manager along with you.” (From the newspaper, The Struggle.)

I take a look at the plan.

The development of our work was outlined as follows: 1929-30—experimental tractor building, during which 150 tractors were to be made, as a test of our preparedness. The years 1930 and 1931 were to give us 1,600 tractors. The time for setting the Plant in operation was fixed for the end of 1930.

This plan had been mangled.

Even before my return from America I had read in our papers a report by my assistant manager, the head engineer, and by the social organizations of the Plant to the effect that the period for setting the Plant in operation was being shortened by three months. The

equipment was obviously going to be late and I wrote off a sharp, strongly worded letter to Stalingrad. My attempts, after returning from America, to win even a few additional weeks were not crowned with success. The work of installation and of organizing production were unduly hurried. That was the beginning of our ailments! In the empty foundry the secretary of the Party committee gave a solemn promise in the name of the workers and employees that the Plant would be set in operation ahead of time. I gave up further resistance and silently surrendered my positions, joining the general whirlpool of enthusiasm.

The transition from the period of building the Plant to that of setting it in operation was fraught with more difficulties than we had anticipated. During the forty days' period of installation the machine tools were distributed in the machine assembly shop like furniture in a new apartment, but the laying of the electric power cable and the installation of the compressed air pipe lines was not done until later on. In the foundry the moulding was being done by hand. The first moulding machine was not set in operation until August 4. We did not have a single measuring instrument. The tool shop was flooded with orders for the production of tractor parts and could not attend to its proper work. The first set of dies had not yet arrived and only after two or three months did they begin to forge crankshafts; up till then they worked on shafts manufactured in America.

Then the trouble began. The hitches in our work arose one after the other, then came a regular series of hitches. All our programs seemed to crumple up and dissolve into thin air; they were so many technically unpaid bills. And meanwhile we were feeling the full weight of our responsibility before the country!

In the machine assembly shop I came on one lad grinding a tractor part and told him to measure it. He began measuring with his fingers. I gave a wry smile and went off without speaking. We had no tools, not a single measuring instrument!

When on account of the temporary absence of machines we were obliged to do the moulding in the foundry by hand, the Americans refused to do it. Many of them had really never done

moulding by hand before. But their refusal aroused unfavourable comment; everyone started talking about it. The Americans knew how to work, but we were not able at that time to take from them all that they had to give. The general confusion and lack of discipline had its effect upon their life too.

The reasons for the unvoiced discontent with the Americans, for the inability to employ their services properly, lay deeper—in the struggle between two tendencies, the American tendency and the “handicraft” tendency. From the very first days “handicraft” methods of work found their way into this Plant of supreme precision and nearly spoiled our whole game. We had to rush from one “tight place” to another, stopping the leaks that had been sprung, but they would burst out simultaneously in several different places. Chaos reigned everywhere and to crown all, it was then that the idea of a “production battle” arose.

During the construction period we had lived and worked in an atmosphere of strain and fury, but during the period of setting the Plant in operation and mastering its production process this way of doing things was not productive of such good results. And we continued to employ “storm” methods! A “production battle” was declared for a certain number of days and the whole Plant, clenching its teeth, hurled itself forward with an agonizing effort. The result was a barely perceptible improvement, after which, however, the tenseness slackened and we once again fell behind. Once again we were assailed by a crop of shortcomings and failures: the foundry was languishing for lack of compressed air, the forge as yet had no shears for the cutting of metal, the plan for the obtaining of supplies went all to pieces.

It is comparatively easy to note and cope with individual shortcomings which stand out in relief on a background of general good order, but when good order is the exception, then the shortcomings merge into one awful whole and to cope with them becomes a much more difficult task. I was no believer in the “production battle” but I thought to myself: “Let them give it a try. All of us—business managers and social workers alike—have got to

have all these ailments before we can find the correct line of march, adjust ourselves to it and advance further. After being plunged head over heels into chaos, we will come to feel the full complexity of the business, we will come to grasp the necessity for a rigorous regime and for one-man management.” Yes, this peculiar method of proof is extremely effectual. On the basis of their own experience beaten people come to understand the importance of one-man management, of just proportion and of an iron interconnection of the whole system of technological processes—from the raw material in the warehouse to the completed tractor.

The conveyer system of production cannot be approached with the ordinary rule-of-thumb methods of the artisan. A high degree of organization is required. Anyone with eyes in his head could see the magnificent scale of the new production methods. The old universal machine which we had working in the repair shop could handle only three frames in two days and was incapable of doing more. But the special American machine which arrived later on was able to handle one hundred and forty frames a day.

I seldom went home in those days and unfortunately I had no time at all to shave. My working day began on the previous night. In the evening, immediately after the whistle blew, all the heads of shops met together in the machine assembly shop and we discussed how the “tight places” were to be coped with next day. Later on in the evening, I had to figure out exactly what we had in the shops, what reserve supplies there were, how great a quantity of parts had been despatched from the forge to the heat treatment department and could be sent on from there to the mechanical shop next day. Everything was now clear, you might think. Yes, but the causes of our technical failures were different each time. We had as yet no shop laboratories and we did not know what things to expect of the raw material that was coming to us. Meanwhile the least alteration in the moisture of the earth used in the foundry resulted in colossal deviations from the normal standard. Often the metal that came to us had grave flaws in it, and after all the operations had been completed on it, the part would have to be scrapped.

Late in the night I visited the stores of raw materials, had a look at the supplies of water in the three cisterns, took one more turn around the shops to see if the fire guard was on the alert and then, if there were no extra-special midnight conferences, I would go home. It was already dawn by then and I would scan with some trepidation the pages of the newspapers. The country was eagerly watching us, rejoicing at the slightest step forward which we achieved and sounding the alarm when we came a cropper or got stuck in a rut.

The fate of the Plant was being decided not only in the shops but also far beyond their walls. In Moscow, in the Central Committee of the Party all the most vital—and doubly concrete—questions touching the life of the Plant and its onward march were raised, discussed, resolved. Comrade Stalin daily received bulletins giving the output of tractors, and should we ever delay in sending in our bulletin, we at once received a reminder, coupled with a query as to the number of tractors and what was holding us up. ... A chart hung on the wall, just as in the years of civil war, but this time it was not the changing line of the battle fronts that was sketched on it; the chart now was speckled over with the dry laconic figures of the daily output of tractors—figures which gave the upward curve of the Plant's progress.

Pig-iron—what quality, how many carloads sent to us; steel—exactly what brand and sort; even nuts and screws—what quality and quantity; just what fixtures were lacking on the machines—all this concrete complex of specific questions relating to the work of the Plant came up for discussion in Moscow, in the C.C. of the Party.

They were watching us also on the other side of the border. We had opened the first factory of a high technical standard in our country, and the whole capitalist world followed every one of our movements, calculating carefully how much the “costly experiment,” as they called our Plant, was costing us. When we broke machines because we had not yet learned to work them, they at once started catcalling, hooting, shouting that this was only to be expected. America wrote about us as though we were already defunct. “The news that the Stalingrad Tractor Plant has virtually ‘gone phut’

arouses but little surprise.” Germany wrote indignantly: “Who ever heard of such nonsense! The supreme commissars seriously suppose that 7,200 unschooled adolescents, including 35 per cent girls, can today copy the methods of Ford, which are founded on the experience of a whole generation, on highly skilled, disciplined and well paid labour power, on a staff of first-class engineers and foremen and above all on the best materials in the world...”

The calm confidence of these statements was scarcely calculated to encourage us. But we did not throw up the sponge. They were singing a dead mass over us, but we meanwhile were alive and kicking, coming croppers and getting bruised all over but accumulating strength all the same. All this represented teaching expenses, tuition fees! We gained confidence by calculating the immense importance of our Plant in the life of the country. Just figure it out—40,000 tractors, our annual production, replace the labour of one million horses! Think of the vast herds, droves of horses that our machines would replace if we worked well, if we did really first-class work. Forty thousand tractors equal one million horses. That’s big stuff!

In the morning I hurried off to look at the board where they had chalked up the parts that were lacking on the great conveyor. I noted which part was likely to cause trouble and then went off to see round the shops. The lack of the most insignificant part was a danger to our plan, for it broke up the even flow of the other parts. And that was happening the whole time. We had begun by completing the construction and the installation of equipment exactly on time, and consequently, we thought, things ought to go easier after that. But no! We were at once assailed by a multitude of harassing details connected with the correct organization of tractor production. We were waiting for ocean liners to bring us our missing equipment, so that, when it eventually did arrive, we could free the tool shop from the rough and unsuitable work that it was having to do. We were striving to establish a hard and fast routine of work. But things did not get easier. We were knocking ourselves all over with bruises as

we painfully passed through the stormy period of learning to work our new Plant—a period fraught with “infantile maladies.”

True, we had a general outline of direct upward development, but it existed only in theory. In practice such a muddle prevailed among us that people would lose the order for some tool, forget the most important and essential things, and flounder hopelessly. Hundreds of urgent and entirely new questions would crop up daily. How did it happen? How did they arise? Hard facts demanded that we make continual alterations in our well-thought-out-system. We had to check up the situation with regard to orders for raw materials, to verify the quality and quantity of the raw materials and semi-manufactured articles which we were receiving, to contemplate the organization of an institute for the training of receiving agents, to examine into questions connected with the transport of freight and the speed of its movement, and on the basis of all this checking up, to introduce alterations into the scheme of orders placed by us.

In the shops, where they were supposed to have a four days' supply in stock, I discovered that the plan was not being adhered to in actual fact. Checking up one lot of parts by their names, I found out that they had got mixed up, and I caught the planning department making errors in calculation and committing inexactitudes. My *bête noire* were the workers who employed “handicraft” methods. The mere sight of a file with which a foreman with “handicraft” leanings was operating was enough to send me flying into a rage. Finding such a “handicraftsman” at his tricks one day, I seized him by the collar, led him all along the great conveyor and turned him out of the shop.

Ivanov went unshaved, swore and shouted a lot. He went round all the machines in the shop, taking a careful look at everything. Once he stopped beside a machine at which the worker was using a hammer to knock some delicate part that he could easily have adjusted with his fingers. Ivanov told him:

“You’re smashing that machine, chucklehead! You ought to be drawing water, not working at a machine like that!...” He

condemned “handicraft” methods of work. I remember how once when the technician Yudin and Protopopov, the head of the foundry shop, came to a meeting of worker-correspondents, Ivanov with his coat all undone got up and said:

“Comrade Protopopov here complains that they’ve been writing him up in the newspaper. A worker correspondent wrote that he doesn’t know his own shop. And now Comrade Protopopov is asking me to remove him from his post. He has taken offence.” Ivanov left the table and paced up and down the plank floor. “Well,” he continued, “it’s a natural and human thing to feel offended. They wrote about me too once. Wrote that I’d built the Plant on sailor’s cuss-words. How can I prove now that the Plant isn’t built on cuss-words? Where can I get a commission of experts to establish the fact that the Plant is built on iron and cement?” Turning to Protopopov, he added: “Don’t worry now; for you, Comrade Protopopov, we will appoint a commission of experts and check up all the facts mentioned in the article.”

Ivanov said: “You worker correspondents must severely attack handicraft methods in production.” He looked around and sought out someone in the hall with his eyes. “Over there is sitting the technician, Yudin. Do you know what this technician has been doing? [Yudin began to go all red.] In the best plant of our country, equipped according to the last word of technique and possessing scores of drilling machines, he contrived to spend three days drilling holes by hand. Turn your pens against such handicraftsmen. It’s they who are holding us back.” (From the memoirs of the assistant foreman, I. Birger).

I did all this and meanwhile I had the feeling that this was not the main thing. The chief trouble lay elsewhere. Our production system had not been prepared in advance. The muddle still continued; all were hindering one another’s work. On August 5, 1930, I spoke about this at the plenary session of the Party committee:

“Getting production going,” I said, “is a much more serious business than carting bricks. And yet our attitude towards production is more light-hearted than was our attitude towards the building of the Plant. It is true that much attention is being paid to the Plant but it is concentrated on the idea of getting tractors off the conveyor and nothing more.”

Our link with the outside world was not strong enough as yet. Plants which were working for us were simultaneously mastering the niceties of their work just as we were mastering ours. But the most important thing of all was that we had not yet succeeded in making our young workers fully acquainted with their own machines. They sauntered around the machine-assembly shop as if they were taking a stroll on the Nevsky Prospect. They went from machine to machine, eager to learn everything and to study the entire plant, but what they did not know was their own small job. It was all very laudable, this desire to grasp the whole production process, and I myself encouraged it, but meanwhile they forgot to get a firm grip of their own machine and of their own job. They didn't know how to handle the machines and sometimes smashed them up. Some machines have two handles—one to set them going in one direction and the other in the other. But they sometimes contrived to turn both handles at once, just to see what would happen and in which direction it would set her going. The result was to put the machine out of action. The lessons we had to give to our raw youth were expensive ones!

Too late I came to understand my own error in thinking that it was a simple matter to operate our machines. When others argued with me before the opening of the Plant, pointing out that it was necessary to train special cadres, I answered that they were inventing imaginary difficulties. I had put my faith in the Komsomol.

“It's true that the machines themselves are very complicated,” I said, “and that it's a very difficult job to set up such a machine; but a machine which is already set up is a simple machine, automatic or semi-automatic, easy enough to work on.”

They sent us seven thousand young workers. I'm not saying they weren't good boys and girls but many of them had never even had a

screw in their hands before. We were a terribly primitive crowd—we had to learn how to carry an oil-can without getting dirt into it, let alone lubricate a machine. Where the machines have large bearings and there is a small number of revolutions, it is possible to lubricate with oil that is not absolutely clean, but on small bearings where the revolutions are more rapid, no dirt must be allowed in the oil. And we thought it was all the same; we poured on dirty oil and “reckoned it would be all right.” Much time had to be spent in persuading us and teaching us how to keep the oil clean, how to carry it from place to place in such a way that no dirt got into it, not to put down the oil-can on the dirty floor and a thousand other “details” of the job. Much time had to be spent that way and we were impatient people.

It was a school for all who were willing to learn. Forty young engineers were sent us by the Central Committee of the Komsomol and at first they seemed to expect knowledge to come to them of its own accord. I came down on these “know-alls” good and hard in the presence of everybody. On such occasions I generally single out some worker specially and try to “flick him on the raw.” There are many who don’t love me for this, but I hold that it is needful for the sake of the job. That is my tactic—to bawl a man out in everybody’s presence. Essentially, this amounts to a challenge and I have found this method an extremely effectual one. After “getting it hot” once, a man wants to show in practice that he’s a much better worker and can tackle his work much better than Ivanov said of him. And a good job too if he does so! So much the better.

Sometimes the “lesson” was not merely a verbal one. I remember how once I compelled the engineers by my personal example to do a little voluntary job on the spur of the moment and carry some boards to the place where they belonged—a thing they had forgotten to see to at the right time. Was this merely a “*beau geste*” on my part? Of course not. I was now sure they would not easily forget how they, together with their manager, had lugged boards to their proper place, and next time they would remember to see to it before.

To know how to lead people means knowing how to educate them. Take that scene in the play *My Friend* * where the head of the construction job, Guy, at a difficult moment throws his Party card on the table and the “man higher up” turns away saying: “I didn’t see you do that.” That’s not the way! He didn’t have the right to turn away; he ought to have given Guy a good lesson, “brought him to his senses.” I have been “brought to my senses” in my time, but I never hold my tongue, never shut my eyes to disgraceful facts. This ought to be a mutual principle in work, both in small matters and in great.

Who was going to teach these seven thousand young workers habits of precision in their work? The answer to this lay with our cadres of technical leaders. I often discussed the matter with our specialists and together with them sought for a way out of our difficulties.

“You want the Plant to work better. Well then, try and make the young worker understand his section of the job as well as you do. Is this so impossible? Of course you can’t transmit your whole stock of technical knowledge to the worker all at once, but give him this knowledge of yours on some single specific question—for example, on the part played by moisture in the earth used for moulding in the foundry. Make an engineer of him, if only on one single question of this kind.”

The seven thousand wanted to learn. When I bawled them out for neglecting to do this or that to the machine, they answered that they didn’t know about it. Sometimes a remark like this from one of the seven thousand would cause me to stop and give him a short lecture to the effect that he ought to get acquainted with the elements of technical knowledge, that he needed to know something about inorganic chemistry and about the handling of hard bodies on the machine, to understand the difference between the structure of metal which cuts and of that which is cut, to grasp the necessity of keeping

* Contemporary Soviet play.—Ed.

an eye on the moving parts so that the machine does not alter the rhythm of its motion, that lubrication is done at the right time, etc., etc. Besides this, you must learn to operate the machine more quickly, to stop it and start it and to manipulate the buttons marked “stop,” “forward” and “reverse” correctly. You must acquire the habit of removing the finished part quickly and replacing it by another and have a place prepared for the finished parts, seeing that this place is kept clean and is lined with wood. You must know how to work fifty minutes and rest ten...

The American engineer, Colonel Cooper, visited us at a very difficult time for our Plant. He went round the Plant, carefully inspecting everything. I awaited his return with impatience. He began thanking me for my hospitality and asking me about my salary. I answered politely but rapidly. I wanted to know what he would say about the Plant. At length he said:

“I am convinced that if you are given time the Plant will work.” He added: “If only you are given time for internal organization and above all for establishing outward connections.”

He was right.

It is not true that we forgot about the difficulties at the time the Plant was opened! On June 17, 1930, we wrote:

“Here, on this spot where according to popular legend Stepan Razin, fighting for the emancipation of the peasants, routed the first band of boyar landlords, we, who are fighting for the emancipation of the countryside from poverty and for an increase of those benefits which it ought to give the town, have gathered together all the best that capitalist technique and science can give... Perhaps the impression has been created among you that we workers of construction are just waiting to be patted on the back and that then we are going to go to sleep? Such an impression would be entirely false. I and my comrades—the factory organizations and the whole group of active workers—must tell public opinion in our Plant: We still have ahead of us a hard struggle for the normal working of the

Plant!... Having severed the connection with America, we now have to tackle the work in our own plants and organizations. Let us see how well prepared they will be! The Plant needs semi-manufactured articles and raw materials. They must come to us punctually, uninterruptedly, and in strictly stipulated quantities. If this is not done, then the Tractor Plant will prove an idol before which Soviet pilgrims will offer prayers."

We didn't want our Plant to be an idol. It was meant to live! And for this we had to strengthen our connections with the outer world. These outward connections were as yet frail and brittle.

I scrutinized some photographs of special steel in which flaws had been detected during the process of work. The steel came to us with all the ailments of the plant that produced it. We adapted ourselves to it as best we could, but the hidden internal flaws made themselves felt on the machine. This was a hindrance to precision and standardization from the very first. Neither Motovilikha steel nor steel from the Red October Plant nor steel from Czechoslovakia possessed the necessary qualities. We wanted steel of standard quality. If you give the smith soft metal today and hard tomorrow, then he will stamp the part today with one blow and tomorrow with two. The routine is broken. One day we case-harden a gear for a thickness of one millimetre and a half and the next day, though it is the same gear and we are using the same system, because the metal is different the case comes out only half a millimetre thick. But that's no good—neither the one nor the other. We want a case exactly one millimetre thick. This can be done if the metal is of a high quality. But we didn't know how to analyse the metal; we were as yet only learning how to regulate the physical properties in the forging process and the chemical properties during heat treatment.

Such were our connections with the outside world in regard to special steel. The metallurgical plant which was our neighbour, the Red October Plant, was learning to smelt special steel at the same time as we were learning our process of production. It was learning to subject its material to correct analysis just the same as we were.

We suffered from a shortage of metal and the metal with which this plant did supply us was of bad quality. Maybe I was impatient, but when a commission from the All-Union Automobile and Tractor Corporation and the Special Steel Trust came to pay us a visit, I led them right into the machine repair shop and showed them a defective tractor that was being taken to pieces. I pointed to the crankshaft:

“The steel that was made of is fit only for the scrap-heap,” I said. “That’s what has been ruining our work.”

I had that crankshaft cut in two before their eyes and told them to watch carefully while it was being done. The flaws in the metal were clearly apparent. It seems to me that they did not quite visualize how great and how severe were our demands with regard to steel; they did not sense all our anxiety, thinking that it was mainly personal and not a little exaggerated. My anxiety increased when I heard that owing to the lack of special steel they proposed to forge the shaft of carbon steel. Fancy forging a crankshaft out of carbon steel! This was a glaring violation of all that had been most plainly stated in our plan; it was an outrage against standardization and quality. I began by trying to talk them round but soon found myself using hard words:

“All right,” I said, in reply to their objections. “I’m not a metallurgist, I’m only a metal worker. But who are you anyway? Maybe you think McCormick is stupider than we, maybe you think he’s such a jackass as to go and choose the expensive sorts of steel for his crankshafts without rhyme or reason? ... McCormick’s a capitalist, I tell you, and it’s the experience of his own hide that’s taught him that a shaft demands high quality steel. Why should we repeat the mistakes he made in his early days?”

On September 20 a meeting of the worker correspondents was held. Comrade Ivanov stressed the following idea:

“We have no right to conceal our mistakes since they represent the property of society as a whole. We ought all to learn from them.”

Comrade Ossinsky, who has come to the Tractor Plant at the head of a brigade from the All-Union Automobile and Tractor Corporation, upheld the idea that the Plant can only start conveyor production when its equipment is complete, i.e., when all parts of the Plant have been fully installed. As regards the present state of the Plant, he said: "The Stalingrad Tractor Plant, if we approach it from the viewpoint of a medical diagnosis, is passing through a critical moment. I have got the impression that a recovery is setting in." (From the newspaper, The Struggle.)

On October 17 I fell ill and had to go to bed. The doctors would not let Ossinsky in to see me. It seems I had a pretty bad attack and was raving in delirium. While I was recovering I had plenty of time to think over everything connected with the Plant—its ailments and the way to cure them. I had often dreamt and still continued to dream that our Plant would become a model one, a unique plant without another like it in the world. We had sought out the world's best machines, an ideal technological process had been thought out. Look at our machine-assembly shop—you won't find any driving belts there, whirring and obscuring the light; the electric motors are hidden beneath the concrete floor; the shop is flooded with light and your eye will be struck by the long avenue of cunning machine tools—machines in which the treasures of the world's technique are concentrated—machines which are built with such delicate precision that they respond to the slightest deviation from the standard process.

What results had we got? I argued it out with myself. "Of course," I said to myself, "it's possible to pour on dirty oil instead of clean and it's possible to put eight rollers in the bearing instead of ten—then the bearing won't turn and the machine won't start. Such are the laws of technique. All that is very, very simple. But it took us some time to grasp it."

What results had we got? Tractor production on the conveyor system brought about a much-needed technical revolution in our backward machine-building industry. The tractor industry

accomplished the first revolution in our metallurgical industry in the production of special steels. Our Plant was the battering ram which broke the way to the preparation of a raw material base for automobile production.

But I repeat—what results had we got? We were fighting our first battle against handicraft, “Asiatic” methods. How much time, labour-power and tools did we not lose thanks to these handicraft methods of work! An organized system of mass production was incompatible with such methods.

We were faced with a definite task—to transplant American experience and efficiency to Soviet soil. Well, what have been the results? On this soil we beat the Whites and to this same soil we are transplanting American experience. We are ridding ourselves of those artisan habits that kept us dependent on the outside world. And it was in our Plant that the new type of worker with a wide polytechnical training, able to employ American methods of work, first began to take shape.

We want precision, a fixed routine of production.

Seven months later, after I had been relieved of my post as manager of the Stalingrad Tractor Plant, I returned there for a short visit. It was May 1931. By that time the whole country, both workers and business managers, were acquainted with Comrade Stalin’s speech of the previous February when he said that Bolsheviks must master technique, that in the period of reconstruction technique decides everything. I had heard that speech delivered by Comrade Stalin at an evening session. He spoke clearly and succinctly.

Comrade Stalin did not refer to our Plant but as I listened to him, I mentally reviewed the difficult months of our searching and strivings, mistakes and blunders. We were searching for the key to victory. It was in our hands; we were mastering the most complex machines in the world. I visited the workers’ settlement, went around all the shops in the Plant. Every corner here was well known to me, roused a feeling of emotion in me.

A week before my arrival the Plant had been visited by Sergo Orjonikidze. * Sergo gave a correct diagnosis of our ailments: “What I see here,” he said, “is not tempo but fuss.”

He said:

“We have not built this Plant in order to surprise the world by constructing a factory here on a desert spot where for centuries past there was nothing but dust; we have not built it in order to shout to the whole world: ‘Look at us Bolsheviks! See what a plant we have built!’ Nothing of the kind! We are practical folk, if you please. If we built this Plant, expended millions of gold, we were quite clear what we built it for. We need tractors for our socialist farms.”

Sergo pointed to a placard hanging on the bare wooden wall of the club and quoted Lenin’s words about 100,000 tractors. “It was on the basis of this thesis of Lenin’s,” he added, “that we built the Stalingrad Tractor Plant.”

What results have we got? We lack precision, it is true. We were involuntarily playing the part of a battering ram breaking the way to new methods of work. At the present time I have charge of the construction job on the banks of Lake Balkhash; here there is to be a powerful *combinat* which will enrich our country with non-ferrous metals. Five thousand kilometres separate me from Moscow and Stalingrad, but I am an old metal-worker and I carefully follow the progress of the various plants in the auto-tractor industry. A strict system in approaching and effecting the opening of the plant, a correct routine in regard to equipment, power and the distribution of

* People’s Commissar for Heavy Industry of the U.S.S.R.—Ed. The quotation from Lenin is as follows: “If tomorrow we could procure 100,000 first-class tractors, supply them with gasoline and mechanics (and, as you all know, that at present is a sheer fantasy), the middle peasant would cry, ‘I am for the communia!’ (i.e., for communism). But to do that we must first beat the international bourgeoisie and force them to give us the tractors, or we must so raise our own level of production as to be able to produce them ourselves.” (Report at the Eighth Party Congress, March 23, 1919)—Ed.

workers—this is the main thing at the present time. I've been through it and I ought to know.

But to continue—what results have we got? I fought for trees, grass and flowers. Not because I'm an æsthete. I wanted to protect the machines from that cursed dust which devours the rubbing parts more viciously than emery paper.

It's all a question of knowing at which end to begin the struggle to give people fresh air to breathe. In taking care of people's health you have to begin right from the machine tool. After the machine tool comes the automobile, after the automobile come good roads. And so on till in the end our people will be driving about in cars and breathing in genuine fresh air. Automobiles mean the building of roads and shady avenues.

Let us sum up.

I look back over the way we have come. Professor D. is not avenged on me. Everything we said remains in full force—just as it was on the design. And it has turned out more or less like this: When you first seat yourself in the saddle, you chafe and sweat more than the horse does; then you learn to ride—and the horse goes well and your seat in the saddle is excellent. We have taken a firm seat in the saddle, holding the reins in our own hands...

I Tell My Sons: “You Got To Study!”

S. KRASAVIN, *Rigger*



I used to work in the railway repair shop on the Ryazan-Urals line. That was in 1905. There was a strike that year, but I didn't understand things in those days—I'd had no schooling, no training, couldn't read or write.

Then in 1908 I changed my job and went to work on the water transport. The boss I worked for owned his own boats—steam barges they were. The pay was arranged so that whether you worked or idled, you got eighty kopeks a day—summer and winter, just the same. I worked along for two months, and then he wants me to stay over the winter, gives me a room with heating and light thrown in. I was on the bum but I says to myself: “Come on, let's stay the winter”—and I stayed. He gave me a wage of thirty rubles a month, and I worked all that winter, repairing ships. When summer came round again, the boss kept me on to work on a barge. I kept that job until the fall, and then the boss gave me the barge. “Go ahead and run it,” he says.

So I worked along with that boss until 1914, when the war came. Chaps of my age were getting taken for the war, so the boss he starts trying to fix things so as I should get left. And sure enough, he fixed it. They didn't take me.

But in those days we had terrible discipline on the boats—the officers would sock you on the jaw as often as not and sometimes knock a couple of teeth out. Well, I changed my job and went to work in the old Dumeau factory what was—metallurgical plant, it's called the "Red October" now. But it was just the same story in the factories at that time—they were strict as hell with the workers. You'd only got to open your mouth and—outside! The engineers wouldn't even talk to us. And often enough they'd give you a slam in the face. Well, some of them got what was coming to them anyway... I remember our foreman—used to drive the workers terrible hard and beat them all he could. Well, one day, I remember, they'd just hauled some hot pigs out of the furnace and laid them on an iron sheet and so they call for this foreman and when he comes they all gather round him in a ring. He tries to escape but they put him on the iron sheet. He turns this way and that but one gives him a push from this side and the other one from that side... And it was all kept quiet as quiet—no one even found out about it. Sure how the hell could he go to lodge a complaint when the whole shop was against him? In the revolution, the workers said, they took such folks and rode them out of the factory in wheelbarrows and poured oil over them.

One day I got fired for bawling out a foreman and I went back to the river to work on the boats again. It's a better life after all—plenty of good fresh air on the river. You know the job and that's all you have to worry about.

After I left Dumeau's I worked first with Bondarev and then with Lapshin. Lapshin was a rich man. He owned seventeen steamships and he had his own oilfields, salt mines, dairies, everything. So I worked along on that job until 1918. And then the whole Lapshin outfit was nationalised.

I'll tell you how it happened.

We were sailing down the Volga with a cargo of mustard, flour and grain on board the barge—a cargo of forty thousand poods. And it was just at that time that the Civil War was beginning. We put in to Kamyshin to fill up with oil and they tried to take away our cargo, wanted to seize the grain. They opened fire on us and there was a bit of shooting but we got away without losing any of our cargo. We sailed on further and then put in to shore again. Our wages weren't being paid. I send a telegram to the boss: "Send wages." But he answers: "Barge not ours now. Get money from anyone who exploits." And he refused to send any.

There was unemployment in those days too. We were left without a hunk of bread between us, the whole crew of eight men. However I managed to bring the barge to Astrakhan. I waited there one day—two days. "What am I going to do?" I think. "Here's the whole crew without any wages." I went first to the shipping office.

"Go and see the man whom the mustard belonged to," they tell me. I searched and searched but no luck. I went to the Commissar of Labour and showed the telegram I'd had from the boss saying he refused to give us wages and that Lapshin & Co. didn't exist anymore. The Commissar says:

"Take the barge to Sarepta and sell your stuff to the Tatars. Then you'll have money," he says.

"How can we? We've a crew of eight men and all of them have families. What are we going to eat? You give us a job." But he just laughs at me.

So I had to go on searching and at last I had success. They gave me three thousand for wages and repairs, and I put the barge in dock right away. We repaired her all by ourselves and loaded her up with sixty thousand poods of potatoes. But we'd only just finished loading her when up comes the steamship "Thundercloud." She throws a hawser and tows us off into a backwater along with a lot of other barges and then starts sorting us out:

"You go to Astrakhan, you go there, you go there..."

So they nationalized the entire outfit. They unloaded all the potatoes and loaded her up with mines instead—six hundred of them. Then they tell us:

“We got to retreat.”

So we retreated. The aeroplanes attacked and gave us hell but we were taken in tow by the destroyers and got away. As for the barge, they moored it some place, hid it away from the enemy.

They let me go when we got back to Astrakhan, and I went off to Vladimirovka where I worked for a bit at the landing stage and then they sent me off to Tsaritsin * to take a look at the barge. When I got to Tsaritsin I met an old acquaintance who’d worked at Dumeau’s for several years. He took me home with him to his room.

“Why not stay and work with us,” he says.

“All right,” I said, “I will.”

So I stayed—settled down there and finished my travels for good. Right up to 1929 I worked at the “Red October”. At first we only had the merchant-mill shop there and that was only working three days in the week. The rest of the shops were standing idle. The old workers had all disappeared—some of them gone to the Kuban because of the famine. As for me, my family was living at Vladimirovka not far off—they had bread in the villages, and I was getting corn and oil-cakes, so I got along somehow.

In 1921 the structural shop was opened, but then there was a fire and the merchant-mill, structural, and wire shops were burned down. No one could make out how it happened. Some said it was sabotage but that I can’t say for certain. Well, we’d lost three good shops, but we set to work and in a month and a half we’d built them up again, all three of them, and they’re standing to this day! Jeez, was there enthusiasm! I’ll say! Whole days and nights I hammered away at overtime work, never left the factory, spent the day there and slept there just the same. So we got our three shops back.

* *Now Stalingrad.—Ed.*

The next to get started was the sheet-rolling shop. By that time we'd got more workers. I was elected by the whole shop and given a special job to do—looking after rationalization. I had to check up on all the mistakes that were made—if they stoked a furnace badly, if they didn't make proper use of the workers and the materials and so on. I had a fellow with me who could read and write. I told him what to write down and he wrote. I got a great name among the workers, I can tell you, because I could get them anything they needed.

I checked up on everything, and then when a commission of inspection came around, I started pitching into the administration for mismanagement. Here they'd wasted so much material and here so much, I told them. If I tell the commission everything, I think, they'll find out who's guilty and give him hell. But the whole thing came to nothing. They shelved the matter. And then some of them began to get sore with me for criticising.

Once the assistant technical director came around and I said to him:

"Why do you go chucking away our money like this? The workers are sweating like hell so as to put industry on its feet again as quick as possible and you go wasting good money without rhyme or reason."

Well, he gives me a dirty look and says between his teeth—"This is not a matter for discussion," he says.

But I had him taped alright. He came to the factory in high felt boots, trying to masquerade as a proletarian, but it wasn't long before he started his little games. He was the son of a landlord.

One time we were repairing the sheet-rolling mill. We had a twenty-ton crane but still we couldn't lift it, so he starts bawling me out like a cabman:

"You holler a lot at the meetings," he says, "but you can't do a job on time."

I say to the others:

"You be witnesses that he's trying to stop my mouth so I shan't speak at the meetings."

Well, I had a comrade who took out a pencil and wrote down what I'd said and sent it in to the factory committee. But they didn't send for me, they didn't investigate the matter. It happened that a bit later he had a row with a young Soviet engineer and threw him against the wall so hard that he died of heart failure. Then they did send for me. I said:

"If he'd waited five years before killing him, you'd have waited five years before you sent for me, wouldn't you? We speak out and show up things that oughtn't to happen and what do you do? You just shelve the whole business. You've questioned me. Well, have you questioned my comrade as well? I was right when I said you ought to look into this."

That man's in prison now.

There was a friend of his too, the head of a shop, an old engineer. One time the foreman from another brigade comes and tells me:

"I handed in a rationalization suggestion and the head of the shop got a reward of five thousand for it."

"All right," I said, "write out a statement and I'll take it up hot and strong."

Well, we'd hardly finished speaking when the head of the shop got wind of it—someone told him that Krasavin was going to take up the matter. I was working in the blooming mill then, as a stoker. The head of the shop sends for me and starts trying to bawl me out:

"Hey, you, what's the idea?" he says. "You get up and shout at the meetings and now you want to know the ins and outs of this business... What are you up to anyway?"

"Hi, you!" I answered him. "You want to stop me talking, do you? It's my sacred duty to find out everything that's wrong and to speak. I'll speak everywhere!"

After that I went to work as a rigger on the installation job at the Tractor Plant. I'd had some experience of such work when I was working on the steamers. There we had to shift loads of all sorts and sizes, so I'd had plenty of experience in that line. Self-taught as you might say.

When the installation began, I set about forming a brigade of stevedores to install the big steam hammer that weighed 120 tons. The engineers wanted to order a whole lot of metal appliances in order to shift that hammer but when I heard about it I said: “No, thank you. None of your appliances. I’m going to fix it without any appliances—just simple and straightforward.” I went off to the warehouse and asked them to let me have some oak joists to cover the size we wanted—33 square metres. “We don’t want clamps,” I said, “we want cables. Cables are twice as reliable as iron, because you never find a bit of metal without a flaw in it somewhere.” I explained it all to the engineers but no—they insisted on ordering the appliances. Then I said:

“I don’t want your iron frames. You called me in on this job—all right then, just be good enough to let me fix it myself and give me the floor this time. I’ll do the whole trick in the night time, so you won’t see how.”

And I did it. The hammer arrived and I hauled her over to the pit with a two-ton windlass, and she weighing 120 tons. Next morning when they come around, the hammer is there as plain as can be, standing at the pit. I tell them:

“You got cold feet, did you, when you heard the big hammer was coming? Well, I got ahead of you that time, for all your technique.”

And I explained. If you put a hammer like that on a plate of iron, you won’t shift her at all even with a twenty-ton windlass. I found some rails, smeared them with oil and slid her along on the rails. At first they told me I’d never get the hammer out of the “Pullman” she was sitting in. They thought I was going to try and lift her over the side of the car. But I let down the side board of the car and laid the rails against the floor. They told me the car would tip over, so what did I do? I got four jacks, put them under the car and lifted it up, hammer and all, clear of the track. Then I lowered it into a framework of sleepers which held it fast so that it didn’t tip over when we slid the hammer out.

Well, after that they let me do as I liked. Whatever freight arrived, I handled it. And so it went on till the whole installation job was finished.

The date fixed for setting the plant going was June 17, 1930. The work was going fine, but it wanted watching every minute. You'd come to take a look at the works—everyone's hard at it and you think: "Just a touch here and there—then we're through and can take a rest." But when you come around next morning the job isn't finished yet. So one way and another I didn't quit the factory until the whole assembling job was done. I had permission, if there weren't enough men for the job, to go to the Komsomol * and say: "Give us a hundred men, give us two hundred"—just as many as were needed. And I got them. Then I'd set them to work—"You this way, Egorov. You that way, Ivanov."

Things went with a swing on that job. According to plan, we had 480 working hours to install that 120 ton hammer, but I got it done in 180 hours. As for the second hammer, she took us only 60 hours and the third one 30 hours. That showed we were getting into the swing of the work and the workers were learning.

In forty-two days we had the whole assembling job finished. I'd got to be well known by that time. From the moment when I installed the 120-ton hammer, everyone knew who Krasavin was.

When it came to laying the pipes and installing the boiler in the factory kitchen, I didn't go home to sleep at all—took my pillow with me to work, under my arm, so I could sleep an hour or two on the job, and we got it done two days ahead of time. I got a bonus that time in recognition of my work—a winter coat, a pair of boots and a certificate saying I was a Hero of Labour. They gave me another testimonial for my work the time I was sent to Yaroslavl, to the

* *The Young Communist League.*—Ed.

rubber and asbestos *combinat*. * I installed three motors there. The American and French engineers couldn't do it, but I did it. And I'd never seen motors of that sort in my life before.

"Thirty-eight tons!" they say to me.

"Well, what the hell?" I said. "I wouldn't care if it was two hundred tons. There's no job that can't be fixed."

They had a brigade of men there working two weeks on one motor. And when I took charge they installed three motors in two days. I was thanked by the Komsomols and the Party and the business managers. The machines I installed that time were quite new ones, such as we haven't got in Russia at all. They call them Burberry machines and they're good for treating all sorts of rubber waste, but complicated! My word! They had to lift the machine up five metres high, put a frame under her and then a stator, before she could be installed. So they started using a trestle and a whole pile of other apparatus. I came along, took a look and saw that that way they were going to smash the machine and break some people's bones into the bargain. So I set about doing it by my own methods, using two shafts. But the machine was as delicate as hell so you were afraid to touch her almost. So I made a frame that she could hang in without anything touching her. Then we began to pay out the chain and lower her into place. The section manager starts telling me that he won't allow the machine to be treated that way.

"Are you an engineer?" I says to him.

"Yes, I am," he says.

But he only hummed and hawed, couldn't talk sense.

The head engineer came along and I told him that this fellow was holding things up.

"All right," he says, "to hell with him!"

* *Combinat: an aggregation of enterprises located at short distances from one another and engaged in mutually related and co-ordinated production processes.—Ed.*

He let me have some workers—as many as I needed, and I installed the machines at that factory and the next-door factory too.

There are nine factories in that *combinat*, all of them working and producing their quota. And in all of those factories the machines were installed the way I showed them. I installed three motors myself and the other sixty they did themselves.

The great thing is to know the different sorts of wood. A piece of wood may be as thick as you please but it won't stand the strain if it's the wrong sort. Or take cable and solid iron. Which can stand the greater strain? Most people would say iron, but cable is more reliable. Cable of many strands is more reliable than that with few strands. And cable with thick strands is weaker. You take flax, for example—that's fine material but strong. The threads of a cable are so arranged that there are no chinks between them. Every piece of iron has flaws in it but fine wire has none.

I remember another time, when I was at the Tractor Plant, I was hoisting a crane. First I collected all the parts together on the floor and then began to hoist. Calder comes along—an American, head of the construction job, an experienced engineer—and says to me through an interpreter:

“Why do you do it that way?” he asks me.

“Well, how should I do it?” I ask him.

“You ought to take first one part and then the next and then the next,” he says.

I explain to him that I've been given 500 hours to assemble this and that I'll do it all in 60 hours. It's easier to collect all the parts first, I tell him. It goes quicker that way.

Calder said that wood wouldn't stand a strain. I explained to him again:

“You're an engineer. You ought to know and to tell me how many tons it can bear. All the more so because you foreign engineers have got such a reputation. You ought to know how much this sort of wood can stand and how much strain that sort of cable can take. I know it, although I never had any schooling.”

Almost four hours we were hoisting, and he stood beside me the whole time. He comes back later on, takes a tape-measure and starts measuring the wood. I say to him:

“Well, have you come here to learn from us, mate?”

He slaps me on the shoulder and wants to give me twenty rubles.

“Take that,” he says. “You’re a good fellow.”

I didn’t take the money.

“I don’t need it,” I told him.

Not long ago he wrote a letter from Chelyabinsk—wants me to come and work at the Tractorstroy there...

Those were my very best working days—that time when we were doing the installation at the Tractor Plant. The sole aim in those days was to start production—to install the plant, set the works going and start giving tractors by the time the Party Congress opened. There was a wonderful satisfaction in that job, and those days are the vividest in my whole working life. I didn’t know what it meant to feel tired, though for whole days and nights I never left the factory. I used to lie down on a table to take a nap and next thing they’d come running to fetch me back. We were all keyed up like we’d never been before. We wanted to open new shops, set new machines going and see how they worked.

Now what I’d like is to go and do the same at another factory. Here it seems as if there’s nothing to do. The workers are skilled already. Take my workers now—you could send them to any factory you liked and they’d do anything. There’s real discipline in my brigade—no one misses work, and we have competition for speed and quality, for saving time and saving materials. The best worker gets a bonus. That makes the others pull their socks up. “Grishka’s been given a bonus. You’ll have to pull yourselves together.” And Mishka says: “Well, if you’re handing out bonuses, I’ll pull myself together quick enough. You see!”

The whole time I was conducting that job I could scarcely read or write. Not until 1928, when I was working at the Red October did I get proper schooling. I was self-taught—learnt by experience. It was in 1930, in June, that I joined the Party. For a year and a half I

was member of the nucleus buro of the shop committee and helped the chairman in explaining things to the young workers who'd only just arrived. When some of them didn't sign up for the Loan, I explained to them that we can't have new factories without paying for them ourselves—the capitalists abroad won't help us! You have to explain things a bit and give them the reason why, and then they'll sign up all right.

Then there are my children—I'm educating them in the spirit of the future. One son is learning to be a teacher and the other is studying literature at Voronezh. As for my daughter, she went to the nine-year school but after the seventh year she quit studying. "I'm going to go to work," she says. And she went to work in the tool shop. Then I've two more boys—they're in the kindergarten—and a grandchild six month's old, born to my son who's studying to be a teacher.

I have a house near the factory, the Red October. The factory gave us money and materials to build our own houses. They gave me a thousand rubles to build my house and I'm paying it back in eight years. I built a house with six rooms. Did it all by myself. We have the radio and a Lenin library and five hundred numbers of magazines. I subscribe and my sons do too. I read in my spare time. In the old days the workers didn't have these things. In the old days they spent their day off idling around and doing nothing. They didn't go to the movies, didn't even know what a movie was. They never had a chance to see one. But now there are all sorts of things I can do with my spare time—I can rest, read a book or go to a meeting—I never miss meetings—or go to the gardens or the circus or the theatre, taking my old woman along with me.

I was brought up in a family of five—three brothers and two sisters, and none of us were taught to read and write. And I tell my sons: "You got to study. Look at me," I tell them, "I've had experience but I never studied theory. If I had, I'd have been a different kind of man altogether."



I Want to Know All About Metal

F. A. KHLOPTUNOVA, Asst.-Foreman of the Machine Assembly Shop

I can remember the month of February 1930 as though it were yesterday. Hard frost and a biting wind, and we weren't given any mittens to work in. Your hands got so cold it seemed you couldn't bear it and as for your face—if you pressed your hand against your cheek to warm it, it would leave white patches in between where the fingers had been...

No, it wasn't such an easy time when we first started construction on the Stalingrad Tractor Plant but we put our backs into the work. All sorts of jobs we had to do. Carrying bricks, digging pits, washing glass, everything. There were thirty in my brigade, all young folks. Eighteen of them were boys and I, a girl, was brigadier. They all did as they were told. My brigade was always neat and punctual.

We had all studied together at the Factory School, studying one day and working the next, and we lived all together in a commune. After work was over, the whole brigade of us would go home. We had one big room in the barracks divided into two halves—one half

for the boys, the other for the girls. We were all on good terms with each other. None of us had been acquainted long, we'd all come from different places and there were arguments and discussions no end.

Take me, for example. I used to live at Saratov, where my father worked for thirty years as a dyer in a textile mill. He joined the Party in 1917 and afterwards became manager of that very mill!—only by that time it was turned into a kind of workshop to produce munitions. Later, it was closed down altogether. And in 1921—a terrible year for Saratov when we had the drought in the Volga region—father died of hunger.

So we were left without a father. I was the youngest of the whole family—the fifth child. Somehow or other I managed to get through the famine—my sister helped me a lot. I finished studying at the nine-year school and then went to work at a machine tool in a cement works. “At a machine tool,” I say, but to tell the truth it was not such a high-class job—only making grooves in the staves of the cement barrels. Still, all the same it was work at a machine tool—factory work. And that meant that when I came to Stalingrad, I'd already had some experience. Some of the boys in our brigade had come straight from the farm without hardly finishing at the village school.

We were all learning to work on gear-cutting machines. Engineer Nesterov gave us lessons on how to cut gears. Funny thing, I'd never imagined a gear could be so complicated. You take a look at one and you think there's nothing to it, but it turns out you have to know mathematics and study the whole structure of the thing. It's very important that the gears should engage smoothly, with minimum backlash and for that you have to study and learn a whole pile of technical terms—root circle, involute, tooth curve, angle of action and so on—in order to understand what a gear is.

We went on studying when we were in the barracks, each one helping the other all he could. The better students helped the others out in mathematics. I, too, had comrades whom I helped out in this way. There was Terkulov for instance, a comrade from the East, not a Russian. He had many names. His real one was Abdrakhman and in

Russian his name was Kolya but we generally called him Terkul-Khan.

Before I told him, he'd never heard what was a diameter or a circumference and he couldn't yet write properly. He drew a circle on the paper and began writing out the words all round it, like a lot of figures on a merry-go-round. He soon finished his sheet of paper that way and having nowhere to write, just sat there saying nothing.

"What's up, Terkul-Khan," I said. "Why aren't you writing?"

"I wrote everything," he said. "I finished the paper you gave me."

He was a fine husky fellow—used to be a stevedore before.

So we studied, learning the theory of the thing and helping one another, but for the time being we only saw gears in our lessons and as for machine tools, we only saw them in pictures.

Then came the installation job. I think those days were the gayest and most exciting for the whole factory. Maybe some of the machinery would arrive in the night-time—then they would sound the alarm and call us out:

"All out to unload the machines!"

And we would tumble out of bed. How we did work! Even in our leisure time we'd try not to disperse in case we were called upon all of a sudden.

The boys would break open the packing-cases containing the machines and we had to come after them to pick up the boards. Once a whole consignment of machinery arrived. The boys broke the packing-cases to bits, took out the machinery and—went home to bed. And the whole place was so cluttered up with broken packing cases that you couldn't move an inch and if a fire had broken out in the factory, the fire brigade could never have got through. Engineer Voronov came along just then.

"What's this?" he says, pointing to the rubbish. "This'll all have to be cleared away."

So I and my twelve girls had a hard job of it, but we got the place clear all the same. Yes, it was hard work, but we were all in good spirits. After it was over, we went home and had a sing-song.

We put our backs into that job, I can tell you, and it was wonderful how neatly it all got done. It made a great impression on us to think that under our very eyes and with our help a giant factory was springing up. And we knew that this was the machine-assembly shop, that this was where the gear-cutting machines were going to be, this was the place we would work in. And then one day our gear-cutting machines arrived themselves.

We were placed at our machines for the first time on May 12. Everything was quiet in the department with almost nobody there except a few electricians who were wiring the machines. Our foreman Komarov came in—a real good foreman he was, so quiet and serious. He showed us all our machines and then said to us:

“Take good care of your machines. See that nobody comes near them or touches them. And don’t touch them yourselves. Experts are coming to teach all of you how to work them.”

I took a look at my machine. It needed a good clean-up. So I cleaned it and washed it with kerosene. My machine glistened and shone and looked as fine as could be, but I wasn’t allowed to touch it and didn’t understand how it worked. We weren’t permitted to tinker about with the machines. Only to look at them. So we kept walking round and round our machines like sentries on guard.

Several days passed and we were still standing sentinel over our machines and waiting. Then they told us:

“The Americans are coming. They’ll show you how.”

Then, however, they took several of us into the repair shop where they’d already been making experimental tractors for some time past and where there were one or two machines like ours. It’s a different matter altogether when the machine is in motion. What struck us especially was the Gleason machine on which they cut pinion gear No. 99.

What an amazing machine tool that Gleason was! Once again I remembered my poor little jointing machine in the cement works which had an ordinary saw going to and fro and making grooves. How many different motions there were in this Gleason machine! On the other machines it’s only the cutters that move but this Gleason

machine is all in motion: the carriage moves downwards, the cutters in their slides—this way and that way, the gear moves back, turns through a correct angle, and moves forward to have the next tooth cut. The boys nudged one another.

“Just look, will you? She might be alive.”

The foreman Goltzfain was working at the machine. The whole day long we watched him at work and asked him what this and that was called, but Goltzfain answered very stiff and important, only one word at a time, just as if he was doing some piece of witchcraft.

Next day they took us to see how Goltzfain changed the cutters on the Gleason. Now, of course, every one of us changes these cutters in five minutes. But at that time Goltzfain kept quiet and never spoke, as though he was doing something terribly serious. And we kept quiet too. We stood in a circle round the machine and no one had the courage to ask anything.

It was especially funny to look at Terkul-Khan. The first time he saw the machine working he suddenly became silent—just gazed and gazed, breathing hard all the time.

We had a regular debate on the way home that day after seeing the machines. The boys were all making fun, shouting and arguing no end. Each put forward his own theory. We talked a whole lot of nonsense—I suppose everything we said was quite absurd.

It was when we were in that repair shop that we saw our Americans for the first time. They came into the shop—one of them so stout you thought he'd never get through the doorway, the other one dark-complexioned, from the Philippines. The fat one came in right away with a smile on his face. That's how we all remember him. His name was Ward. The first time we didn't speak to them at all but just stared as though it was some sort of miracle had happened.

Well, a few days later Ward came to work with us on the new machines. He was wearing a black suit with a blue shirt and tie. With him was our Zina, to act as interpreter. Ward smiled to us and said something in his own language. The interpreter translated:

“Mister Ward says that he will teach you. He asks you to do your best.”

We nodded to him as if to say: “All right, we’ll do our best.” Ward smiled. He didn’t say anything more to us. Maybe he didn’t know how to get on with us at first, couldn’t make out what sort of kids we were. I dare say that in America they don’t let folks like us go near a machine tool. Maybe he even had doubts about us being up to the job.

Next day Ward brought along a pencil and some text books. He gathered the whole brigade around him and began naming the various major parts of the machine. Only very gradually, little by little, did he begin to explain the inner parts of the machine at the following lessons. At first we didn’t understand him well. It’s terrible working with interpreters—they never know anything about technical things. Ward was very patient but he could hardly stand it. He’d repeat a thing over and over, then he’d go red and snort when we couldn’t understand, and he’d pull out a notebook and make all sorts of drawings on it and show us with his hands...

Everything that he explained to us we wrote down on paper and then in the barracks when we got home we rigged up a blackboard of black ply-wood and drew the different parts on it once again. Each one had his own way of explaining the thing and we used to have many heated arguments. Then next morning back we’d go to our Americans and start battling with the interpreters again.

The boys all had different ways of learning. They even made their notes in their own different writings. Terkul-Khan kept silent more than the others, but he puzzled things out in his head very stubbornly. He didn’t write much. Then there was another boy, Petya Grekov, who was just the opposite—always fussing and trying to write everything down. He wrote so much he produced a whole gospel of notes. We used to say: “Grekov’s writing a bible.”

However, his “bible” didn’t help him much. Terkul-Khan got on much better than he did.

All the boys made friends with Ward very quickly. They’d even go to visit him in his room and listen to the gramophone. He was a

real good man. We'd worry the life out of him with all our questions but he'd always explain things without ever getting flurried or impatient. He wouldn't mind how often he had to repeat a thing. Ward had a great opinion of our Gleason machines and told us there weren't many machine tools like that, not even in America. He loved those machines, and he was very pleased to find we wanted to understand them. Sometimes when you were sitting at your machine, looking serious, he'd come along and do something to cheer you up, maybe wagging his finger at you threateningly or pinching you on the ear. He liked to have everyone around him smiling and laughing.

Somehow or other we very quickly learned to understand Ward, even without an interpreter. He didn't know Russian and we didn't know his language, but all the same we understood somehow. A lot of things he just explained to us with gestures. True, he had learned one or two Russian words, and we soon came to know the meaning of some English ones so that when he said: "Kolya fetch the screwdriver," we knew what he meant.

Later on some more Americans arrived and they divided us up into small groups. Five of us, who were brighter than the rest, were taken by Ward himself to be trained as assistant foremen. I was the only girl among the five.

When I was getting to know my way about the machine a bit better, another group arrived from the Factory School, including Friedman, Birger and others. All those lads are skilled workers now, but at that time they were a wild crowd, if you like.

They came in, stamping around in their big boots and shouting where the hell were they to go to. And I had to explain things to them.

One time something happened that was enough to give even me a scare. Two lads were sent to me. One of them, Potapov, was a neat, punctual, disciplined fellow who you could see had been in the Red Army. The other was a tall, lanky, light-haired lad who must have come from the farm not long before.

I took them and showed them the machine, explained all the different parts and was just going to set the machine going when

suddenly, what did I see? The cradle on the Gleason had dropped right down and wouldn't come up again. I was scared to death. That's the end of the machine, it's ruined, I thought. I looked at the two lads and asked:

"Boys, you've been touching something? What did I tell you?"

"No!..."

"How could that be?"

I looked at the light-haired fellow—he was silent, so was Potapov.

"No, we didn't touch it..."

I went to Ward. I knew he was a good man and kind-hearted but for all that it seemed terrible and the words would hardly come out of my mouth:

"Ward, come here a minute. Something bad. . . ."

Ward opened his eyes and came to have a look. He shook his head and made signs with his hand to show that someone must have been tampering with the machine.

I was almost in tears.

Ward looked at Potapov. He answered right out:

"No, it wasn't me."

As for the light-haired fellow, he mumbled something incoherently:

"The devil knows what's been happening to it."

But Ward suddenly understood and pointed at him with his finger. "You've been meddling with the spring on the worm." The fellow blinked and stuttered, but there was no escape. He was probably thinking:

"How the hell did this fat chap guess it was me?"

Well, the damage wasn't so terrible after all. Ward took hold of the cradle and gave a great heave—I didn't know he had such strength in him—and managed to lift it up again. He adjusted the machine so that it worked all right again. But I gave that young man a piece of my mind, I can tell you, and so did Potapov too. He tried to defend himself:

"I didn't do her any harm. It was only the spring went wrong. How the hell could I know she was so darned ticklish?"

Among my machines were two Gleasons of a peculiar make—we used to call them "the machine guns." All the other Gleasons worked cleanly and smoothly but these two—my word! They were as nervous as horses!

Such a banging and clattering they made, you thought next minute they'd all fly to pieces. When you get accustomed to a Gleason, you listen to her as you work and it's like the ticking of a clock—so even and regular, you feel easy in your mind and you can picture to yourself all that's going on inside her. But those "machine-guns"—they were all fuss and hurry, seemed to be tripping up and stumbling the whole time. And then they were always breaking down.

Ward didn't like the "machine guns." To tell the truth, he didn't understand them any too well. There was another American, Shuler, who knew more about them, but he wasn't an American at all, he was a one-eyed drunkard and a fascist—a Polish fellow who'd lived a few years in America. He wouldn't explain anything sensibly to our young fellows, and as for girls—he despised them as far as factory work went.

"You won't understand anything anyway," he would say. "You just listen to me, do as I tell you and work."

When he was sober he treated us with contempt and when he was drunk he'd annoy the girls so that you wanted to scratch his other eye out almost.

Only now and then, when he was half-drunk, it seemed as though something would come over him all of a sudden and he'd take you by the collar, just like a kitten, pull you close up to the machine, shove your head towards it and start explaining. Then you'd have to listen just as hard as you could—he knew those "machine guns" well that man did.

Well, I learned the job at last and in August 1930 I was made an assistant foreman.

What did I have to do as assistant foreman? Instead of sticking to one machine the whole day long, I had a group of them under my charge with a worker at each, and I had to see that all the machines were in order, attend to the cutters, deal with minor accidents and help the workers if anything went wrong with their machines.

Now I have sixteen machines under my charge but at first it used to be eight. And I was the only girl in our shop who was assistant foreman—all the rest were boys. I never got laughed at because I was a girl and had suddenly been made an assistant foreman, but at first I could feel that they were just a bit mistrustful. As soon as anything happened to my machines Pokusayev or Matveyev or one of the others would come running up to help me, but I just couldn't bear to be helped by them—I could fix it for myself. I couldn't stand it and I said to Ward:

“You don't need to send them to me. I'll fix it by myself.”

“Bravo, Alice,” he said, laughing.

He had a way of calling me Alice, like a foreigner. And he used to tell me about the girls in America. In America there aren't any girls who work at machine tools like we do. The girls there are all young ladies who work in an office.

“Why did you want to do factory work, Alice?” Ward asked me. “Much better be a typist and work in an office where it's nice and clean.”

I shook my head. No, it's better doing factory work. And my opinion of girls is just the very opposite. I've had to train workers for work at the machine tools and in my opinion—although I don't want to hurt the boys' feelings, mind you—in my opinion with such an exact thing as a machine tool, girls can do it better. Boys are that way—they don't take pains to look after their machine. Girls maybe don't know so much about mechanics but they take better care of the machinery, oil it better, wipe off the dirt more often, see that the cutters are in good shape.

It wasn't until I was already assistant foreman that I had my first tiff with Ward. He cut up rough about an oil-cup once. He'd told me I ought to fix it as its cover was off, and I forgot. Next time Ward

comes around to look at the machine he sees the oil-cup isn't fixed yet. He gets all red in the face and begins to scold me—he was real sore:

“Bad foreman,” he says. “No good. How many times have I told you?”

“Aw, Ward, it's only a trifle. . . .”

“No, it's not. A trifle here and a trifle there and pretty soon the whole machine'll be ruined.”

“I'll fix it tomorrow, Ward, sure I will.”

He got real angry at that.

“Don't wait till tomorrow. Do it today!”

He wrote about the machines to our wall-newspaper *The Shock-Brigader*, and once he said:

“You ought to take better care of those machines. Don't think that once a machine tool has come to you from America, it's going to go on working forever without being taken care of.”

Gradually Ward began to come less and less often to the shop. We felt that we were already beginning to be able to get on without him. But all the same, when we had seen Ward off to America, we all felt terribly blue without him. Even after he had left, Ward still kept on thinking about his Gleasons.

He wrote us letters and sent an article to our wall-newspaper saying we were good kids and ought to go on working as well as before now he was away.

“Dear Alice,” he wrote to me from New York in the autumn of 1932, “I am working here on some machine tools which will soon be sent off to Chelyabinsk. There's not much work here in America and many people unemployed, though it's true I have been at work ever since I arrived. Many new machines have appeared lately but there is no market for them.

“I hope to return to the Soviet Union in the spring and maybe I shall go to Chelyabinsk.

“I hope everything is O.K. with you at Stalingrad. My best regards to all. I often think of all of you.

“Always your comrade, “Rollo Ward”

O.K., Comrade Ward! I have sixteen machines under my charge now, and those whom I once trained have now become assistant foremen themselves and are training new cadres, new recruits. We've all got used to the job.

Now, if I stand in the middle of the shop and listen, I can tell by the sound which machine is working, which one makes that noise. If something is out of order, you can tell at once by the unevenness in the beat. You can tell the difference just as quickly as when a player in an orchestra plays out of tune.

It's three years now since I first learned about machine tools. Now I'm beginning to see some faults even in our Gleasons and it seems to me it would be possible to make an even better kind of machine tool so as to cut any sort of gear and not just a bevelled one.

And soon it'll be three years that I've been working at the Tractor Plant. I've joined the Party here and got married too. My husband, Mangutov, was at first working at one of the machines under my charge. He was a good worker with a calm, assured way of working, and he learned the job better than I did. He learned to do all that was needed for himself—to fix all the springs and everything. He never talks at work unless it's necessary, just does what's needed. Now he'll soon be leaving for Leningrad to go and study there.

I want to go and study too—after all, you get tired of turning out the same old parts all the time—but no, they won't let me go. They told me:

“Train someone to take your place. Teach Plastikova to be assistant foreman, and then we'll let you go.”

Well, I trained her long ago; Plastikova's been working as assistant foreman a long time, but still they don't let me go. Never mind, I'll get my own way in the end and then I'm going to study to be a metallurgical engineer.

I want to know all about metal, to study it through and through.

Why do we get bad metal? Why do the cutters get spoiled? All that depends on the composition of the metal. Do you know how they test the strength of metal on a Brinell hardness tester? They apply pressure to it with a special ball until a small dent appears in

the metal; then they measure the diameter of this dent under a microscope. The softer the metal is, the greater the diameter. And in a laboratory you can go much further—there you can study metal through and through. That's what I want to do, not to stay stuck in one place all the time.

Do you remember Terkul-Khan, by the way—Terkul-Khan whom I taught what a diameter is, and who looked so funny the first time he saw a Gleason? Well, he's been working for a long time now as assistant foreman and studying at the Workers' College. We meet now and again and have a talk together. He's quite an advanced student and he speaks Russian well now. As for mathematics, maybe I could learn something from him myself in that line.

O. K.



**ROLLO WARD, Foreman
of the Gear- Cutting
Department**

I am forty-two years old. Consequently I was born in 1891. My home is Lynn in the State of Massachusetts. There I went to the elementary school and after finishing I went to work in factories in various places in America, but I never changed my type of machine. I've been working the whole time on Gleasons.

In May 1930, I came with a group of Americans to work at the Stalingrad Tractor Plant. I worked as senior foreman in the Gleason machine department, where I was awarded the certificate of a shock brigader and surrounded by the love and attention of my pupils.

In every man's life there is a certain date which he remembers his whole life long, a date from which begins a fresh epoch in his own intimate history. And if you asked me which is the date which I reckon the most important in my life I should answer without hesitation:

“The day I came to Stalingrad.”

I did not arrive at this conclusion at the moment when the Volga steamer came alongside the dusty landing stage of Stalingrad No. 7 and we, tired out with the long journey and above all with the food, to which our American stomachs could never get accustomed,

collected our baggage and disembarked. If I might be permitted to characterize our state of mind on that day, I should do it with the one word—"rotten." And our tempers did not improve on the days which followed our arrival. To tell the truth, however, there were no grounds for this bad temper and anyhow it is not worthwhile to revert to that time and to play again the role of the discontented foreigner, especially since there are other themes more interesting both for you, dear reader, and also for myself. The unloading, for example.

Not the unloading of our bodies but the unloading of the heavy rectangular crates of machine tools which had luckily suffered much less from the journey than we had. Then came the uncrating and the uncovering of all those powerful Ingersolls and Gleasons. The installation of the machine tools was done with a speed and efficiency to which we were quite unaccustomed. It was then that I first heard the word "shock brigader" which has now become familiar and fully comprehensible to me. It was funny to see our Americans in these surroundings. They did not understand exactly what place they were meant to occupy in this disconcerting welter of organized chaos, and they tended to efface themselves. On the one hand, it was unpleasant to say "Go slower," and on the other hand all this creation gave the outward impression of anarchy out of which no rhyme or reason seemed likely to emerge.

However, despite all the gloomy prognostications, despite the ironical observations of "We'll see" and "Just wait," order came out of chaos. Before many days had passed, all my Gleasons were standing in a row—clean, washed and gleaming with oil. Then the fun began. It was not a question now of conveying these machines through foreign lands; the job now was to look after them, to nurse and feed them properly. They required oiling, they required correct treatment. And to us Americans who had breakfasted on some dishwater that called itself coffee, the thought involuntarily occurred: "Now, boys, if you can't treat your machines any better than you make coffee, then you won't get much out of them."

Well, I was wrong.

Love for machines, an attitude of special loving interest for their working principle—that was what I noticed from the very first day of my acquaintance with my young assistants. And believe me, they were young! Never in all my many years of practical experience have I had to do with such a green crowd of youngsters. I confess that in the first minute I almost lost heart—how could I teach such youngsters to handle complicated machines? Sure, they won't understand a darned thing! And involuntarily my glance rested on one boy—a raw country lad, to judge from his appearance. Wasn't it too risky to put a boy like that to work on a machine tool? Yes, they were young, these kids in the Gleason department. Yet they were the same boys whose names have now become known far beyond the bounds of my shop—Lyanguzov, blue-eyed Konov, broad-shouldered Friedman, Birger, the dreamy fellow, and others.

However, doubts are doubts and work is work. And the work in this case couldn't wait. We had to set about what is called, in factory language, “the mastering of the equipment” and learn how to work these machines. I thought that nobody would understand me, that no one would ask me any questions.

No questions! They just about inundated me with questions, they never let me rest, they caught me by the coat-tail if they thought I was likely to slip away or that I wasn't answering readily enough. They bombarded my interpreter and me with a regular barrage of “whys” and “hows.” They were interested in every screw and every nut on the machine which they were going to work on. They were not content with a little; they were always wanting more and more. And here I first came to understand the tremendous difference between capitalist society and the society of the country which I was now visiting for the first time. In the life to which I was accustomed in my home country, the capitalists do not find it profitable to let the workers into all the secrets of the machine's workings. They turn them into cheap automatons whose whole work consists in the turning of a handle. Here, on the other hand, the worker is encouraged in every way to study his machine. It is held that every worker not only has the right but is also in duty bound to know all

the secrets of his machine. Here the worker wants to be not a two-legged machine, automatically carrying out some stereotyped operation, but a live human being, interested in his machine and its workings, doing his work intelligently and according to plan.

This I may call my Revelation No. 1.

Revelation No. 2 came later on.

By virtue of the comradely relations established between me and my boys, I came to share their social and personal life. Personal but not individual. Because the isolated individual played a very insignificant part in their eyes. What attracted them far, far more was the “commune.” That was how I made my first acquaintance with the life of a factory commune.

While some of my semi-fascist colleagues were straining their throats discussing the case of those two hooligans * who disgraced their country by an infamous attack on a defence-less man, I went to visit my young “communards” and observed them during their hours of rest, recreation and play.

I am not a sociologist, and politics, to speak frankly, is not my strong point. Don’t expect me to describe the significance of the communist form of life as the ideal of comradely fellowship. But without probing into these depths, I can make bold to say that my fellow-countrymen have much to learn from my young Soviet friends. Nowhere have I ever seen such amazingly good relations between girls and boys! And this at a time when they were still living under bad conditions from the point of view of culture and general comfort. I started visiting them more and more often. They soon got used to me and I was able to watch them silently during their hours of rest and play. The games they played were gay and distinguished by a peculiar inner enthusiasm of youth which is not to be met with in so-called “civilized” countries. It was easy for me to see that they could learn!

* Ward is here referring to Lewis and Brown who beat up the Negro Robinson.—Ed.

I don't intend going into raptures and I won't say that in this family of young friends there mayn't have been some black sheep. Probably there were some, but I am firmly convinced that, if so, they were expelled with shame from this company in which all were so natural and at the same time so disciplined. Therein lies the greatness of this Soviet epoch, that the government of this country is only in rare cases obliged to take official measures of compulsion.

The sense of duty and discipline in the community is so high that it readily and unfailingly discerns the black sheep that has intruded into the fold and quite simply kicks him out (sometimes with very palpable kicks).

I always had them under my eye in the Gleason department and to the best of my ability and strength I did all I could to explain and demonstrate what was needed. I prepared myself on the quiet and read them lectures—a thing I've never done before in all my long years of work. I don't want to boast of my labours but I can claim to have given up many hours teaching those youngsters, and that was something I'd never have dreamed of doing in a capitalist country where the bosses and the men are at daggers drawn, and all the latter are dreaming of during working hours is to cut off to the cloak room as soon as the whistle blows.

Countrymen of mine would often come to see how the work was getting along in my department and whether I had achieved any tangible results. Some of them were discontented, "offended" or full of grievances. And a matter of perpetual wonderment to me was the complaint that "the Russian worker was no good." At that time I was still sufficiently simple to be surprised at this and to think: "Can it be that the flower of the Russian nation has found its way into my department? Has my good fortune been such that my kids are O.K. while those of the other Americans are good for nothing?!" And only later on did I come to realize that the boys were all right, but that some of my countrymen were no good. And not until much later, not until quite recently, did I realize that if I had stood aloof from the social life and interests of the Soviet workers, I would not have been able to do anything, because I would not have been able to grasp the

tremendous difference between the socialist system and the capitalist, I would have been prejudiced enough to judge, as did many of my colleagues, that “the Russian worker was no good.” I would have found a source of irritation in all his acts and all his movements, and the results in my case would have been just as bad as in that of my colleagues.

I will avoid singling out any one of my workers or mentioning names. I don’t want to flatter anyone or to hurt anyone’s feelings. It must be clear to all that among my pupils there were some who were more bright and others who were less bright. It never happens that all the workers of one group are on the same level. But to make up for this they employed the “tugboat” system—a new word with which I now became acquainted—which means that the more advanced ones help out, or “take in tow,” their less gifted comrades in all sorts of ways. And as a result of this we now have a group of highly skilled workers.

I remember how many of us Americans made fun of socialist competition and shock brigade work and were ready to misrepresent this mighty movement as a case of forced labour almost. I looked most carefully for elements of compulsion in the way in which socialist agreements were concluded, I tried to minimize the importance of shock brigade work, but I can honestly say that I had no success in the matter. In my eyes this movement has remained just what it is—a proof of the worker’s will to improve himself, of his desire to bring greater benefit to his class, for which he is working.

I have before me several letters written by me to be read out at general meetings of my Russian friends and I would like to acquaint the wider public of the U.S.S.R. with these letters since they fully express what I feel.

Boys of the Iskra Commune!

You are extraordinarily interested in your work and are making tremendous progress. It seems amazing to me that you, who came here not long ago from the countryside and who had

never before seen complicated machinery, should be so interested in mastering the equipment that you are ready to devote day and night to this task and infect even an old fellow like me with your labour enthusiasm. You have given me great pleasure by letting me spend some time in your commune. You are performing a great work, demonstrating in actual fact that it is possible to create and develop a new mode of social and domestic life, entirely different from ours and without doubt more advanced—I can say this about our boating excursions, our games, etc. You were always young, always natural and always devoted to the great work you are doing.

My stay among you has wrought a revolution in my way of thinking. It has been a great pleasure to me to be your teacher and friend. I will not forget you after my work here is ended, and will always remember the experience which I have gained among you.

That is the first letter. Here is another:

A year has now passed since the foundation of the Iskra Commune and of other factory communes. In so far as I have been able to observe during my daily work with the youth, the factory communes are in the vanguard of the great reconstruction period of the U.S.S.R.

I sincerely hope that you will never rest on your laurels but will always press forward to new successes. Let production always be the first thing with you. See to it that your machines are clean and well oiled. See to it, moreover, that when the foreman comes into the shop and looks into your tool-box, he may find everything in order. Clear away all the rags, bits of steel and dirt from your place of work.

We want to keep up a high standard and serve as an example to others.

Once again, comrades, accept my congratulations on the occasion of your first jubilee.

And here is my last letter:

Dear Comrades,

I ask your chairman to read out this letter at your next meeting.

I wanted to thank you for the splendid letter which I got from you on the occasion of my leaving for America on vacation. It more than repays me for my efforts to teach you. It is not due to me that you have become what you are. We did very little in comparison with what you have done. Our visit to you, and the fact that we have been able to see your magnificent factory at work, have a tremendous significance for us. This will never fade from our memory. It still seems unbelievable to me that only a year ago you had never set eyes on a Gleason machine, and now you can work on it like veterans.

I am proud to have been your instructor, and await with impatience the day when I shall return to your midst. Good-bye, my friends, continue to conquer as you conquered when I was with you.

I read over my letters once more.

I do not take back one word that is written in them. And when they ask me in my own country about the future of the Soviet Union, I tell them about the boys and girls there who are advancing to the attainment of the goal they have set themselves. I say:

“Can’t you see for yourselves that the future belongs to them? Just look at them—they’re changed completely.”



A Mordvin Tribeswoman

MÉMÉ KÉRÉMÉ, Assembler in the Machine-Assembly Shop

I am a Mordvin from the Erzya tribe. I used to work in a kulak's family—well-to-do folk, whose child I had to nurse. They'd give me a bite of something to eat in return for my day's work. Sometimes I'd do a day's harvesting for a kulak and earn as much as fifty kopeks, and sometimes I would make tow out of hemp by pounding it in a mortar. That was hard work, if you like. Your hands would be blistered all over and the blood dripping from your fingers.

Spinning too. I remember spinning as much as a hundred *talkas* once or twice, spinning till I'd got no feel left in my arms and my back was ready to break.

What's a *talka*? Why, a *talka* means sixty threads of yarn. Everyone knows what a *talka* is in our village—the word's quite well known there.

The kulaks I worked for lived three versts away from our village and I had to trudge all that way to fetch the hemp from them. I'd get into my big thick coat and strap myself in tight so the wind wouldn't make me cold and then set off with a bundle of tow slung over my

shoulder behind and another one in front. I'd fetch home the hemp from the kulaks and bring them back spun yarn.

Beginning in September and working all the time—October, November, December, January, February, March—right up to April next year—in all these months I earned just thirty rubles. How could you make enough to buy shoes and clothes that way? It was murder working at those rates.

Then I came to Stalingrad. There were only three barracks here at that time and they put me in with the rest. I carted beams, so that even the men workers had to admire me, carried bricks in a hod, hauled planks and boards, poured water for concrete-mixing, set up the reinforcements, carted gravel, sand and sawdust. Seven months I worked that way. And I studied too, learning to be a fitter and assembler at the Factory School. We were told: "Those who don't pass the examination will have to go home." But I thought to myself: "Even if I don't pass, I'll stay and work as a charwoman—anything sooner than go home." The things I had to study! Geometry, production system, mechanics, everything—and I'd never so much as seen a tractor in my life! I couldn't sleep nights for thinking of it. The others would all go boating on the Volga, but I'd stay home and study for the examination.

Well, I passed it after all.

When I started working in the shop, the job wasn't going as well as it is now. Those were the days when we were putting out one tractor a day. They told me my job would be to put on the fan. I didn't know what that was. They showed me and I did it. Then I waited for more work, but none came. I took off the fan and then put it on again, stood and waited for work. Then I was transferred to work on the brake. I stayed only two days on that job and was then put to work on the dashboard—worked three days there and then on the fuel piping. I was quick at picking up a new job and they wanted to teach me everything.

Now all that's been done away with. You have to stick to your job on the conveyor and not keep changing around the whole time. Now I'm working on the clutch coupling of the gear-box. When I

was working on the construction job I earned forty-eight rubles a month, when I started on the conveyor I earned seventy-two rubles at first; now I earn a hundred and eighty, sometimes two hundred or more.

Last year they gave me a month's vacation as the best shock-worker—no one objected when they chose me. The journey home is two thousand kilometres. The whole month I was trying to get my family to come here but they wouldn't budge. Mother says: "I'm going to die in my native country." I went home again this year and this time I managed to persuade them to come. I brought back my mother, two brothers and a sister to Stalingrad and got them a place in the workers' lodging house. Mother nearly cried her eyes out!

I took my brother to the shop to get him a job. He folded his hands over his belly and stood there gazing like a young heifer. I had to laugh at him. "Well," they said, "let's put him to work on a drilling machine." So he started in, and now he's learned to work on all the drilling machines we have. He's just twenty. As for my other brother—the one who's seventeen years old—they put him on the conveyor at first, but now he's gone to study in the Factory School.

We had trouble getting a room. I was one of the first in my shop to get a shock-worker's certificate and they should have given me first choice when it came to getting a room. Several times they gave me a slip for a room but it always turned out that the room was occupied.

It went on so long that way that at last they told the vice-manager of the Living Quarters' Department: "Look here, we're going to take away your room and have her move into it." That was when I'd been to the Trade Union Committee and shown them three slips for rooms that I'd been given. And still they kept on sending me on fools' errands as before. They gave me a fourth slip, but when I got to the room, I found it occupied like the others.

In the Living Quarters' Department they asked me: "Why don't you return the slips?" "You may think you're very clever," I said, "but just you wait—you'll find I'm cleverer than you." They gave

me another slip—the fifth one—and once again I found the room was taken.

They were just making fun of me, that's all. I collected the five slips, pinned them all together and took them straight to the Trade Union Committee. Well, that vice-manager—Kangur was his name—lost his job for that. However, he managed to get appointed head of the buffet in the factory kitchen. No sooner did I hear of it than I thought to myself:

“I'll be damned if I don't get him fired from that job!” My opinion was that that man had to go. I had a talk with the secretary of the Party nucleus, put the matter before the control commission, and the upshot was that he got turned out of the factory kitchen.

They gave me a room with electric light and steam heat. It's a bit crowded of course, but then we're all working different shifts so it doesn't matter.

I'm now carrying on cultural propaganda work for the Party nucleus and am inspector for labour protection for our whole department. What do I do as inspector for labour protection? Well, for instance, I take a look at the machines and if I see one without a guard, with the iron shavings flying about, I tell them about it and get them to put a guard on. During my spare time I go around the shop with my note-book, jotting down notes. Not once during the whole year was there a tractor rejected because of my operation on the conveyor.

Then I have another job besides—I have to inspect the factory kitchen, apart from the help I give in cultural campaigns.

Not long ago the doctors held a conference with us. They read out a list of persons who were going to get premiums, and I heard the name “Mémé Kéréme” read out. But I sat there saying nothing and never dreamed it could be for me—for after all it was a conference of doctors, wasn't it? When no one answered the name, the others started asking: “Who is she? What shop does she work in?” “In the machine-assembly shop, on the big conveyor.” Then I saw it must be me, but still I didn't answer—it was terribly awkward. Then an acquaintance of mine—one of the doctors—said to me: “Go on

Mémé, it's you." They gave me a premium—three metres of cloth for a dress.

The Party collective wanted me to study. But I found it dreadfully hard, what with the Russian language being all different from ours and having my family at home to live with. Still of course I want to go on studying. A few days ago they told me I was being sent to the Workers' College. *

* A few weeks after this was written a letter from Mémé Kéréme was published in the factory newspaper, informing her fellow workers that she had just passed the first examination in trigonometry.—Ed.



Gauge Worm *

LOUIE GROSS, Chief of the Tool Shop

We lived in the town of Waco in Texas. All around were dense woods in which my father, Joseph Gross, worked as a keeper. He was a gay, light-hearted man. He wanted to make a woodsman of me, saying it was the best life of all. When father went off to the woods, he would take his gun with him but still more often he would take his fiddle. He used to play our native Hungarian airs.

Once uncle Aaron came to visit us from New York. He was a tall thin man, a mechanic by trade, and through him I became interested in machinery. As a boy, I often used to go down to the little railway station in our town to watch the engines. I gazed in wonderment at the gleaming piston rods moving to and fro, set in motion by some force that was invisible to me. Uncle Aaron told me

* Gauge worm is slang for a good gauge maker.—Ed.

about the wonderful machines in the factories where he worked, of the machine where they put paper in at one end and a printed newspaper comes out at the other. I found this idea still more attractive and exciting. He went on to tell me of machines which plane and saw iron but that was beyond the bounds of my imagination. Iron was so strong!

I wanted to be a man who was the master of these machines, a man who drove engines and motor-cars. What could be finer than that—you set the machine going and drive off at full speed! At home I'd never seen anything like it, for we rode on horseback there.

I made it my aim to become a mechanic, but father didn't like the idea and tried to persuade me not to.

"Why be a mechanic?" he said. "Look at your uncle—he's a skinny little fellow and his hair's all coming out. All workers in the towns are like that. Catch me doing that sort of work!"

Father was hale and strong, with broad shoulders and rosy cheeks.

"Look at me!" he would say. "A woodsman's life's the best."

He was very anxious for me to become a woodsman. But I answered him:

"You stick here in your old forest and go on living in this little hick town while Uncle Aaron makes machines."

In the end I ran away from home and went to join my uncle in New York.

Uncle received me rather coolly, but I told him I wasn't going back to Waco and he got me a place as an apprentice in a printing machine factory. I was bound apprentice for four years. The first two years I was to get three dollars a week, then four dollars, and then five. Money was worth something in those days. So I went to work.

One day when I was walking around with another fellow, a Hungarian named Dik, he began in a guarded way to tell me about an organization which was to unite all such people as us—all the workers. He was an enthusiast. He thought that all class-conscious workers ought to be in the I.W.W., the Industrial Workers of the World. He took me to a meeting in a little hall and there they began

to explain to us that we were working for the benefit of the boss, who was exploiting us, that we gave up our working time for a few cents while the boss who owned the factories lived like a lord. My new comrades started to convince me that every thinking person ought to join the “Wobblies” and make a revolution and then the world would be a paradise for the producers. They told us we didn’t have to bother with ballots and parliaments—that was all dope that the intellectuals talked. All the workers had to do, they said, was to strike, and then they’d get all their demands granted.

“That’s the talk,” I said to myself, and I became an enthusiastic Wobbly.

I read a great deal, seizing every spare moment to devour revolutionary literature. I would read during the brief intervals in working hours or, going into the toilet, I would fish some Wobbly book out of my pocket and read it there on the sly. Jack London made a great impression on me. His novel *The Iron Heel* was well suited to my fiery temperament.

In 1917, I was already trained as a tool-maker and went to work in the Slocomb-Avron-Slocomb factory, where we manufactured precision instruments for war purposes. They paid us a miserable wage and our district trade union nucleus, Micrometre Latch, decided to call a strike.

That was my first strike. I had my first experience of picketing and of strike tactics in general at that time. But the A.F. of L. leaders betrayed us and after two weeks we had to go back.

The loss of this first strike was a stunning blow to me, but afterwards I became accustomed to looking defeat straight in the face and I didn’t lose heart.

At the Eisemann Magneto Works where I was out on strike with the other workers, I fell in with a strike-breaker. I was young and ready for a fight and I started bashing him. The other scabs whistled for the police and a policeman came running up and gave me such a beating with his blackjack that I hardly managed to get away. My comrades were close by and saw that I was having a bad time of it, but they couldn’t help me. They fetched my motor-cycle and shouted

to me: "Run for it, Louie, get away on the bike!" I managed to tear myself away from the policeman and started running towards the bike, but my head swam round, I fell heavily and broke my shoulder blade. The cops left me alone, my comrades came and picked me up, and I had to spend three months in the hospital.

Soon after I was out of the hospital, America went into the war. I was attending the evening technical courses at the Cooper Union Institute on Third Avenue at that time, and when war was declared I got up in the hall of our school and said that humanitarian aims were only a pretext for the war—the real aims of the war were entirely different. That speech was a big success—so successful in fact that it got me kicked out of the school. And I decided to go and try my luck in the factories of America, to see the world and show what I was made of. I was young, independent, had learned a trade and had a smattering of theoretical training.

However, they didn't seem any too glad to see me in the factories I came to. I was too young, it seemed. Sometimes I said I was twenty years old, but I couldn't get them to believe it. Well, at last I got a job in a workshop where they turned out sights and gauges for guns. At first I found it difficult work and made many mistakes, but I got into it somehow, though it required great precision.

After a while I came to the conclusion that I wasn't earning much that way. I was of a hot-headed nature and couldn't bear to stick in one place for long. So I quit and went to work in another factory where they made various kinds of dies. To speak more exactly, it wasn't a real factory but only a workshop. I went on working there till we came out on strike, and the strike was defeated—we got a terrible beating and only just escaped being locked up.

We went around from factory to factory after that. I found it impossible to keep a job for long. I would try to get a job some place, get taken on, work a week or so and then get fired—the devil knows why. It seemed as if everything was in order, but they'd fire me all the same, and without giving any reason. Maybe we Wobblies were

on the blacklist, for in America they have a widespread system of espionage, and active trade union workers are all blacklisted. They had all the more reason to know me because I was an active member of the Micrometre Latch nucleus and had got in wrong with the bosses.

I went off to the little town of Pontiac near Detroit to the Oakland Automobile Plant where I worked as a draftsman in the office.

I kept that job for six months but I didn't like it. I hated the conditions. We all had to wear white collars and we weren't allowed to utter a word during working hours or to whistle or laugh, and I found these rules terribly oppressive, being accustomed to sing at my work and be gay.

Everyone went around on tiptoe and spoke so quiet and civil you could hear the flies buzz. The crowd there were all so silent and obedient. The White Slaves, I used to call them—slaves in white collars. I tried to get into conversation with them but I saw pretty soon that that type of person only thinks of himself and takes no interest in politics. Only one thing he's sure of—if his father was a Democrat, then he's a Democrat too; if his father was a Republican, then he talks like a Republican. He looks upon the workers as a disturbing element and thinks there's nothing better in the whole world than American democracy.

I found I was suffocating in that atmosphere, so I chucked my job in the drafting room and went back to work at the bench. I was a complete stranger in the shop, for in America the office and workshop are quite separate from each other. I felt much more at home there and made friends with the other workers at once, being a gay and talkative fellow by natural disposition. However, after eight months at that job there was another little "misunderstanding." I was an active Wobbly by this time. There was no union at Pontiac, but I used to get leaflets from Chicago and stick them up in the toilet. They were leaflets calling upon the workers to unite and overthrow capitalism. They caught me sticking them up one day and I had to quit work in that factory.

It happened this way. One Monday morning as I came to work, the guard at the factory gates blocked my way and asked me:

“Where are you going?”

“To the works.”

Instead of letting me through, they gave me my pay in an envelope and a box with my tools in it and said:

“Get out of this town or we’ll break all your ribs for you.”

I naturally valued my ribs highly enough to prevent me from staying. Packing up was an easy job in my case. My shirt and collar were dirty so I changed them for clean ones and set out for Detroit with my tool chest in my hand.

Those were years when every day brought something new, something startling. I shall never forget when we received the first news of the Russian Revolution. I was glad the tsar had been overthrown, but I didn’t know what was happening in the country. After the October Revolution the papers wrote that the Bolshevik despots had come to power in Russia. They depicted the Bolsheviks all dressed up in fur caps with bloody daggers in their hands. But I remember Bill Haywood saying at that time as soon as he received the news of the proletariat’s victory:

“Good stuff, boys. That’s *our* revolution!”

Big Bill knew how to rouse people. One man may be a good speaker but he doesn’t grip his hearers. While another speaker doesn’t speak so well, maybe, but there’s fire in his speech. That was the kind of speaker Bill Haywood was.

It was in this keyed-up state of mind that I came to Detroit. At the beginning of 1918, came the revolution in Hungary. The Hungarians living in Detroit were all astir at once. We canvassed all the houses of the Hungarian workers, carrying on agitation to persuade them to return to Hungary. Everyone supported us except the clergy.

We mustered four hundred Hungarians who were prepared to defend the revolution, but before we could obtain permission to leave the country the revolution had been crushed.

I got a job at the Studebaker Plant and worked there for six months at lathes and milling machines and then one day I noticed that the man working at the lathe next to mine was a worker from the Oakland Automobile Plant where I'd been before. Well, I said goodbye to him—and next day, I was fired. I didn't care though. The war was still on and tool-makers were badly needed. I went to work at the Cadillac Plant in Detroit and managed to keep my job there for four months. I joined a group of Wobblies there and we carried on agitation hot and strong. We were well organized this time, but the same fate was awaiting us as at the other factories. One fine day, they handed me my pay envelope and my tool-chest saying:

“Get to hell out of here, you son of a bitch, if you don't want to get beaten up!”

I took my tool chest and went off to Texas, to my brother William. I only stayed two months at Waco, but it was enough for me—I can't stand a quiet life. In the neighbouring town of Dallas there was a strike at the local dairy. The strike was in its third week already when some agitators from the I.W.W. were sent there to help. They came to our house to spend the night and set out next morning for Dallas. They went in cars and my brother and I started off after them at midday. But as we got to the town we saw the bodies of our comrades swinging from the arch of the railway bridge. That was the work of the Ku-Klux-Klan. They do their work at night mostly, all clad in white robes with black masks and a slit for the eyes. The leader rides in front on a white horse with a burning torch held in his hand.

The sight of my comrades' corpses hanging there had such an effect on me that I could not spend another day in Waco. I wandered off to the woods, but there all was quiet and that made me feel even worse. The only thing for it was to go off to some big city. So I went to New York. Here I met Weinstein with whom I studied before at Cooper Union. He had finished his studies by now and become an engineer.



We Only Just Escaped Being Locked Up

“So you’ve become a White Slave, have you—a slave in a white collar?” I asked him, laughing.

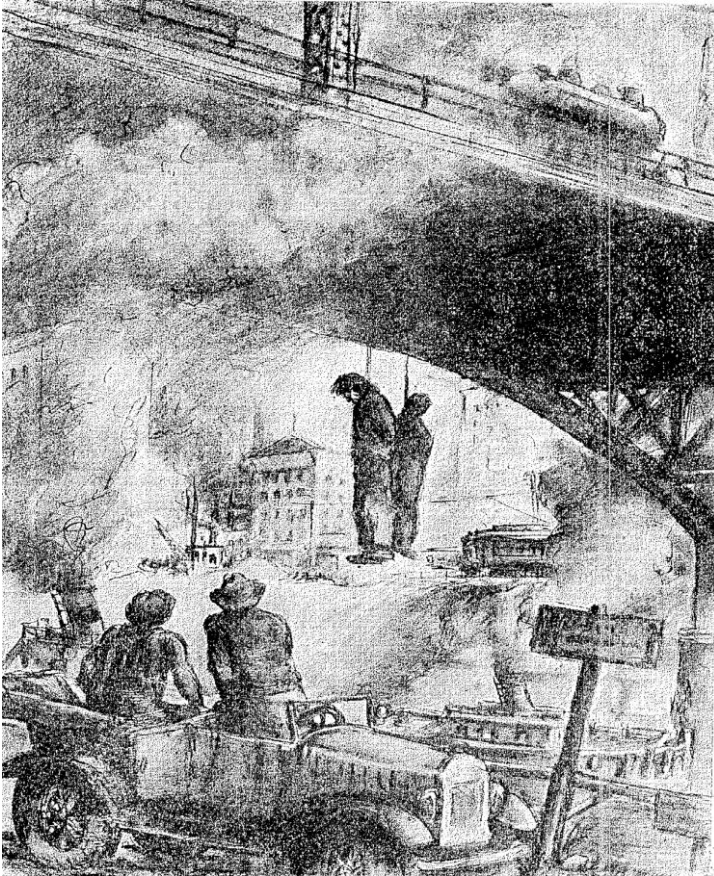
He shook his head, and together with his brothers he conducted me to a small hall where they were studying the theory of the class struggle. And so I had my first lessons on Marx’s *Capital*—in a little house with a back garden in the East Side of New York. Pretty soon we got turned out of there and had to move to another hall.

The man who conducted our class was a tailor named Harry Waton. He didn’t try to “cram” us with Marx, as some teachers do—on the contrary, he had a live and fascinating way of taking us through *Capital*. The book is freely circulated in America, but if a worker gets it into his hands perhaps he won’t understand it well right away. These questions have to be studied deeply and in detail if you are going to grasp the full significance of *Capital*. I went on studying with Harry Waton until the class was broken up. He was a real good teacher—his lectures were fascinating and everyone listened with all their ears. *Capital* is not an easy subject but when he was speaking on it you could hear a pin drop, it was so quiet. There were forty of us in the class, mostly workers. The two brothers Schaeffer would always be sitting together—a pair of wandering agitators who never stuck to the same job for long. In summer they moved around from town to town, coming back to New York in the winter.

We often used to speak of Russia. Even at that time I wanted to chuck everything and go to the country about which there were so many different opinions. Harry Waton advised me, when I got to Russia:

“Mind you get among the people. Get to know the people!”

However, I didn’t go that time, for they called me up for military service, examined me at a mobilization centre, pronounced me fit and gave me a certificate for the first class, group A. I objected and said I didn’t recognize the war, but they put me down for group A all the same.



What Was the Work of the Ku Klux Klan

Well, seeing I had to serve, I asked to be sent to my home-town. When I arrived at Waco, I went home and stayed there, thinking they'd forget all about me and that would be the end of it. But they didn't forget about me. They came to fetch me and I had to face the music. I said my conscience wouldn't permit me to kill people and that, speaking for myself, I had no interest whatever in going to war. When I'd finished they made me a short proposition:

"Either we string you up according to lynch law and light a fire under you, or we'll simply hang you, if you won't go to the war. Make your choice!"

They called me a traitor and threatened to finish me off then and there. One way and another I decided the only thing was to serve. I declared that I wouldn't shoot anyhow, even if they did send me to France. "We'll see about that," they answered.

Well, I worked for three months as a mechanic in an aeroplane repair shop and then we were told the regiment was being sent to New York. I knew well enough what that meant. Of course they were sending us to France. "It looks like a bad show," I decided. I went with the regiment as far as St. Louis. Here they gave us twenty-four hours' rest and let us free to walk around as we liked.

As I was strolling past a little shop where they sold second-hand clothes, an idea struck me—to throw away my uniform, put on civilian clothes and run away. Without wasting time thinking about it, I bought an old suit, left my uniform on the bank of the Mississippi, got into a boat and sailed off downstream. As for my service cap, I chucked it away in the middle of the river.

At dawn I came to a little town, where I disembarked, asked the way to the station and got away by train, and at twelve o'clock at night I turned up at my brother's in Texas. William got a terrible scare, thinking they would come and kill me. He got out his motor-car and during the night we drove to the Mexican border.

It was eight hours' drive from Waco to the border. They stopped us on the border but William showed them his papers. The frontier guards asked him:

"Where are you going?"

“Just going to have a drink.”

There was prohibition in America at that time and people often used to cross the border to tank up. Besides my brother was acquainted with some of the frontier guards, whom he had had occasion to bribe once or twice before now, and so he managed to get me across without any difficulty. We came to a little town called El Paso and from there I went on to the oilfields at Tampico where I started work as a turner.

There were several thousand fellows there who had escaped from military service the same as me. We put out our own printed paper, *The Deserter*, which had seventeen thousand readers, and we organized ourselves into a Society of Conscientious Objectors. The wages there were extraordinarily high—up to twenty-five dollars a day, but it cost you anything up to twenty-four dollars to live. There was a terrible crowd of bums there too and a great deal of drunkenness and thieving—nobody could trust the next man. However, I decided I was going to stick it out come what may, because I was a fellow with some guts in me and wasn't going to be sent to France anyway.

When the war was over towards the end of 1918, I got news that nobody was looking for me and I could go home if I liked. So I crossed the Panama Canal from Tampico and took the boat for New Orleans. There was a general strike in the town when I arrived. It lasted two weeks. I went around without any work, slept on the boulevards, joined the pickets and helped the strikers all I could. I was in my element once more. We tried to make an attack on one of the steamers in the harbour but we had no luck and barely managed to get away, because the police were only waiting for some excuse of that kind to open machine-gun fire and crush us by force.

We fed on bananas—they chuck the ripe bananas off the boats so they won't go bad during the voyage. They'd throw them straight on to the quay and we'd devour them like wolves. Six days I lived on bananas and then I was taken ill. They picked me up unconscious on the street and took me off to a hospital. When I recovered, I didn't

want to leave. They turned me out, but I had no place to go. Still I had to go all the same.

With great difficulty I got a job in Luna Park as a mechanic, cleaning and looking after the merry-go-round machines. I worked from nine in the morning till one o'clock at night and received twenty dollars a week. I felt awful on that job, among all those silly amusements. It's the old trick of the bourgeoisie—they think out the silliest amusements they can to distract the workers from real life, and we pay them for it!

That Luna Park job was wearing me out. I was an awful sight at that time—nothing but skin and bone—and I wanted to go to my brother's.

The Americans were returning from the war and they weren't feeling quite as patriotic as they were when they left. There may have been a little patriotism left but it was only on the surface. The old warlike spirit had gone.

At Waco I had plenty to eat and filled out a bit. I watched the peaceful life my brother was leading and then, like a born Wobbly, I began to agitate the four workers employed in his workshop and tried to get them to organize into a union. However, they told me they could get along all right without a union and took it into their heads to beat me up. Then I went off to Detroit to work in the Earlstead Plant where they made dies for automobile bodies. They welcomed me there as a toolmaker. I was a skilled and dexterous worker by now—a "*gauge worm*," as we call it.

We used to hold our meetings in a disused church. In that year we had great fights between the Socialists and the first Communists. There were some heated arguments, often enough ending in blows. We had a leader in our I.W.W. group who told us every Wobbly ought to join the Socialist Party and then fix things so that the best workers would split off with them and go over to the Comintern. Lenin's Twenty-One Conditions split Detroit into two camps. In the Socialist Party they had got the wind up and tried to stop us, but the I.W.W. backed us up. Our group split off and joined the Communist Party.

I and some other young comrades were given the job of organizing the Y.C.L. We set about it but after a bit I found that the boys wouldn't come to our "Red Church." The main trouble, I decided, was that they found it too dull. How do the bourgeoisie manage these things? They have football and rowing teams and all sorts of sports and games to attract the youth. So I went and told the Communists how it was—that the young folks wouldn't come to us, and we'd have to think of something. They blamed me for it, saying:

"You don't know how to agitate!"

"It's not only that," I said. "We've got to have some amusements as well."

"This isn't a music hall you're organising," said they, "it's a Y.C.L. group."

They didn't like the idea much but all the same I collected a football team and played in it myself and pretty soon more people began to join. Every young fellow likes a game. They came and played and I could carry on my agitation among them at the same time, so that one way and another they found their way into the "Red church." We played bourgeois and Socialist teams and gradually our feeling against them began to get more and more embittered. When any bourgeois lads tried to get into our evening parties, we picketed the door of the church and refused them admission.

But still I had too much of the Wobbly left in me. I had no idea of the importance of politics and thought that the only way the workers could win was by economic strikes. I held these false views right up till the events in Italy in 1920 when the Syndicalists seized the factories and the tragic example of their failure convinced me that you can't get anywhere by mere agitational action without the seizure of political power. I became convinced that we must destroy the bourgeois state apparatus and build a new one of our own.

And all the time I was getting more and more interested in what was happening in faraway Russia. At that time the first group of Americans who wanted to go to Russia and work in the Kuzbas was being formed. Russia was having a difficult time of it in those days and we decided that each member of the group should invest three

hundred and sixty dollars in the undertaking and bring various sorts of tools. The organizers were Haywood, Rutgers, Andreychen and Kotlyarenko.

My friends helped me collect the three hundred and sixty dollars and I left America without regret. I wanted to see Russia. When we sailed, I went down to my cabin and didn't show up on deck until we were out in the open sea.

They told us we wouldn't want anything in Russia. All I took with me was a pair of good brown boots, some socks, an overcoat and a straw hat.

We arrived in Leningrad early in June 1922 and had a look round the town. It was like a ruined city in those days with the pits and ruts all over the streets and only a few passers-by to be seen on the Nevsky Prospect. After a couple of weeks we were put on a train, hard class, and sent off to the Kuzbas. The journey took a fortnight. They gave us a whole pile of paper money but we lived very cheaply and didn't spend much. I couldn't get to sleep on the hard seats and at every stopping place I used to jump out and lie down on the grass. I'd lay my hat under my head, wrap myself up in a soft rug and get a wink of sleep that way—and so it went on all the way to Topki.

We arrived at Kemerovo on June 28, 1922, and two days later I started work. I had with me my invariable travelling companion—my tool chest—and I'd brought along a lathe which I unpacked, installed and set going. Such was the workaday beginning of my life in the new Russia and of that of my comrades. We built a chemical plant, we worked with all our might and bawled each other out for the least mistake we made. My stomach was often out of order, but I didn't stop work even when I had dysentery—I was ashamed to give in before my comrades.

Ephremov, of the Y.C.L., was working on the lathe next to mine. I very soon made friends with him and we went to the theatre together and to meetings. I found it easy to make myself understood in Russian—if I didn't know a word, I explained with gestures, and at the meetings I listened to the words of the speakers with such strained attention that I sometimes dropped off to sleep. The first

Russian sentence I learned was: “Ya vas lyublyu!” * And I boldly pronounced it to a Russian girl from Kemerovo who afterwards became my wife.

So we lived and worked in the Kuzbas—built a factory, laid out the walls of the houses we were to live in and trained new cadres of Russian workers. I had no difficulty in standing the Siberian cold—I was young and could easily get accustomed to new conditions, and I was master of my trade. But one fellow, Larew, who’d come with us from America, a soft, romantic intellectual, couldn’t stand the change. He was longing for the busy streets of New York. Besides, he had no trade of his own, worked as a storekeeper and was obviously bored with the life there.

“I’m going back to America to tell them about the new Russia,” he said to us.

“All right, go,” the commune decided, and I was chosen to accompany him to Vladivostok.

I stood on the quay as the boat sailed away with Larew on it. The seaport, the sailors, the smell of the sea, aroused in me a strange feeling of unrest. At Kemerovo the coking ovens we had made were already working—everything there was so quiet and peaceful now that it seemed dull and uninteresting for my fiery nature.

The main thing, it seemed to me, was that we had done what we had come to do. What was there left to do now? I was feeling gay and lively, spring was coming and it had got into my blood. Then I received a blow. It was at the meeting where my comrades met to discuss my application for membership of the Party. There was no need for me to talk about myself or to show my calloused hands—they all knew that I had begun to earn my bread honestly when I was still a boy. I had left America with them, and the country to which I had brought my lathe, the ground which I had cleared in order to build a factory on it, had become much dearer to me than America.

What more did they want?

* “I love you!”

I stopped smiling and began to scowl when they asked: “How do you stand now in regard to Wobbly illusions?” I flared up and answered hotly that a Wobbly’s a Wobbly anyway and there was no sense going over what had happened in America again.

“And the Wobblies weren’t such a bad lot either,” I added, “no one can say we didn’t put up a good fight against the bosses.”

Rutgers shook his head.

“Maybe they weren’t such a bad lot,” he said, “but that’s not what we’re asking you. Didn’t you learn any lesson from the events in Italy in 1920 or have you forgotten all about that?”

No, I hadn’t forgotten that in 1920 the Italian workers were beaten although the Syndicalists had pinned all their hopes on a general strike. All this was true, but why did they take it into their heads to ask me about it now? I shrugged my shoulders and was silent. I heard someone’s voice saying unconcernedly:

“He’s still clinging to the I.W.W. Better wait a bit before we take him into the Party.”

That was meant for me. I turned and walked out of the meeting. It was dark and still outside. I wandered further and further away from the lighted window of the club. A feeling of vexation against my comrades took hold of me. Didn’t they know how I had beaten up the scabs in every strike, how the police had beaten me up, and I never gave in but fought with all my might, to the last gasp! On such a night as this—it was the eve of May First—I went all round the west side of New York and stuck our leaflets on the walls, calling upon all the workers to come out on the streets. They caught me at dawn, dragged me to the police station and beat me till I fell down senseless. But not one word could they get out of me.

Such reminiscences did not cool my vexation. I arrived home with the firm conviction that I had to get out of Kemerovo. I said to my wife:

“Come along, honey, get ready for the road. We’re going to move out of here quick.”

Life in the Kuzbas was too peaceful for me! I went to Rutgers and told him I couldn't work there any longer—I wanted to see the whole of Russia.

“All right,” he said, “go along.”

But he warned me not to stay in Moscow, for I would die of hunger there, he said.

All the same I went to Moscow with my wife. We travelled in an unheated car, but I had a fur cap, warm breeches and American workers' boots. We arrived at the Kazan Railway Station at nine o'clock at night. I didn't know where to go. For five rubles the cabman took us to a hotel in Domnikovsky Street—a private hotel, with bugs. My wife behaves very well at such moments—never utters a word of reproach.

Moscow seemed to me to be even more confusing than Leningrad. I couldn't for the life of me make out why a street had one name for a couple of blocks and then continued under a different name. I ran into some acquaintances from America. They asked me:

“What are you doing here?”

“Going back to America.”

“Why?”

“Well sure they say there's hunger and unemployment in Moscow.”

“What the hell! If you're a skilled worker, you can find a job in no time.”

I set out to walk the whole way from Kalanchevsky Square to the AMO * factory. I went on foot, asking the passers-by “Where is AMO?” I walked and walked, on and on, via Danilovsky Square and the Moscow River—I thought I should never get there. That journey of mine lasted from early morning until dinner time. At length I reached the factory. They wouldn't let me in, told me workers weren't needed.

I returned home and told my wife we'd have to go back to America. “The folks in Moscow are not hospitable,” I said. But on

* The Moscow Automobile Plant, now the Stalin Plant.—*Ed.*

the Solyanka next day, not far from the Central Council of Trade Unions, I fell in with another acquaintance from the States.

“What are you doing here?” he asked me.

“I was in the Kuzbas and now I’m going back to America.”

“Why, what’s up?” he asked in astonishment. “Isn’t there work enough here?”

“I went to AMO, but they wouldn’t take me.”

“You come along with me. I’ll fix it for you.”

Lepse, the chairman of the Metal Workers’ Union, wrote out a note for me saying I was to be taken on at Amo. I told him I’d been there already and they’d turned me away, but Lepse just laughed. “Never mind,” he said, “they’ll take you.”

They sent me to the tool-shop, to foreman Yakovlev. The old fellow looked at me closely and asked:

“What do you want?”

I pointed to the machine tools, meaning “I want to work.” I couldn’t explain to him that I was a toolmaker. “What can you do?” Yakovlev asked me. I pointed first to one machine then to another and told him I could do this and do that.

“What nationality are you?”

“American.”

Yakovlev burst out laughing.

“You’re kidding! What kind of an American are you with that fur cap and those blue breeches? You’re from the Caucasus maybe.”

I assured him that I was an American. He took me off to the inspection department where an American named Epstein was working. I spoke to him in English and he told Yakovlev that I really was an American.

Yakovlev was a cunning fellow and a capable foreman. As a test, he gave me a jig to check up to see if I could find any fault in it. I fished my instrument out of my tool chest and started measuring. Yakovlev watched me.

“All right,” he said, satisfied. “Come this way.”

He took me to the vise and gave me, as a test, one of the most ticklish jobs there is—making a “dovetail.” It’s not an easy job, I can

tell you, you have to fit a “dovetail” with great precision. First, I reckoned the dimensions on a piece of paper and drew a sketch and only then did I start to work. I asked him if they had a grinding machine. Yakovlev was surprised.

“What do you want a grinding machine for?” he asked. “We aren’t accustomed to it.”

I told him I was accustomed to do the grinding on a machine and that manual labour was a superannuated business.

“We haven’t got a machine of that sort anyway,” he said.

I answered that they had got one because I’d seen it. True, the machine was covered an inch thick with dust and nobody was working on it. I rolled up my sleeves, set the machine in working order, did my grinding on it and very soon had my “dovetail” ready. I just gave it one final polish by hand and brought it to foreman Yakovlev for inspection.

“Are the dimensions correct?” he asked.

“Check them!” I said.

They were accustomed to check by eye. He took a square, but I saw how he was doing it and said:

“That’s not the right way to do it! You’re a skilled worker and ought to know how to check it.”

And I showed him how to calculate the dimensions.

“Oho!” said Yakovlev. “You’re a clever fellow, I can see. Can you make some jigs for me?”

“Yes, I can.”

They gave me some jigs to make and I worked away at the lathe and milling machine. I did all they wanted and in five days’ time handed in the stuff to be O.K.ed. Yakovlev did not even think it necessary to check them.

I asked him: “How much will you pay me?” He said:

“Eighth grade—a hundred and twenty rubles.” I was flabbergasted—a hundred and twenty rubles! Could I be worth that much? I forgot I had to pay five rubles a day for the room at the hotel. I came home that night all aglow and told my wife.

“One hundred and twenty rubles a month! What will you do with all that money?”

And she answered that we were paying five rubles a day for the room and meals were dear in the restaurant. Not till then did I remember that we had to look for an apartment.

They gave me a place to live in Tyupheleva Grove. It used to be a bath-house, but there was no water there and no light either. We went to the Sukharevsky Market and bought a bed and a table and so I found myself settled and at work in Moscow.

After a bit I began to notice that work in our factory was very slack. I called attention to this and suggested that we do piece-work. So they set me to make clamps and set a price of eight rubles a clamp. That was an awful lot of money. The first day I earned forty rubles as I was using a grinding machine the whole time and did very little of the work by hand. Yakovlev saw it and said:

“You’re earning too much that way, my lad. Let’s put you on time-work and give you a wage of 200 rubles a month.”

I offered to do the clamps at a price of four rubles, but the foreman said that wouldn’t do either because the other workers couldn’t keep pace with me—they couldn’t work on a grinding machine and would not agree to such rates. What can you do when the others won’t work on a grinding machine! I selected a fine brigade of pupils and started teaching them, and pretty soon they had become good all-round toolmakers.

I taught Filzer, Morozov, Kunin and Orlov to work on precision instruments and they were glad to learn from me all the knowledge that I possessed in the art of toolmaking.

AMO was a factory where I really settled down and worked for a long spell, took firm root. I saw the Amo plant gather strength under my very eyes—every one of us there had a hand in the long uphill struggle. And then I appreciated the way I was treated, the way they responded to my initiative. Maybe you want to plan something new. Go ahead and plan it, they say. I was given a free hand to design a tool factory and this is just the kind of work that attracts me above all others.

When you have people around you who are not thinking only of stuffing their bellies full but who've got wider horizons, then it's easy to live and to work.

I became a hundred-per-cent "Red" and I made a second application to be admitted to the Party. This time things took quite a different course from before, at Kemerovo. I had a right to be in the Party. In this country, which had now become my country, I had never once been kicked out of a factory with my box of tools, as had happened to me at the Oakland works, Detroit, merely for making uncomplimentary remarks about the bosses, for free speech. Here we spoke about ourselves and we spoke quite freely. I laughed when I remembered how vexed and angry I had been at Kemerovo. This time I myself told the workers everything—how I had been a Wobbly and how I had thought we were freer than anybody else and that nothing could be higher than the idea of a general strike. I myself tore to pieces my illusions which remained from my Wobbly days.

The only thing that was left in me from the past was my restless character. I longed to see everything that had a bearing on my work.

In the exhibition organized by the Metal Trust I saw some new metal-working machinery brought from America and was very anxious to see it at work. Well, I had a chance to see it working in the tool shop of the Stalingrad Tractor Plant.

I came to Stalingrad in May 1930 and saw the tool shop there with its eighty machine tools. But at that time one had the feeling that the place was not yet fully alive. The delicate and complex work which these machines demand had not yet been fully mastered.

I came to the Tractor Plant again in November of the same year with a government commission. I had to lend a hand in the tool shop. My first impression was that the workers were eager to work but had no clear idea of how to organize production efficiently. The shop was littered with rush orders and this at a time when no tractors were yet being put out.

I saw that everyone was racking his brains, sketching designs and sending them in to be made in the tool shop. But after the order

had been fulfilled, the article, whatever it was, was very often thrown aside and forgotten. This happened, for example, with reamers and with various sorts of arbours. All were engaged in “creative work” instead of tackling the job of organizing production efficiently.

I went to the head of the tool shop, Bryushkov, and told him I had been sent by the commission to help them out. He shrugged his shoulders:

“What work are you going to do?” he asked.

“Any work you like.”

Bryushkov reflected a long time on where he was to put me. Every post was filled, it seemed. I suggested he appoint me instructor in the tool shop and he agreed. Later on, however, he appointed me his assistant in the organization of production.

Various tractor parts were still being made in our shop as they had not yet had time to make them on the machines of the machine-assembly shop. I suggested turning out these parts on a press and making dies for the manufacture of spokes, etc. It was no good continuing to have the tool shop encumbered with tractor parts. Such a state of things had to be stopped. The machines in the tool shop demanded expert and careful treatment from the worker.

What is the difference between Russian and American methods in gauge-making?

In America, highly skilled workers are employed at this job who are acquainted with all kinds of machine tools and are able to perform any operation themselves. They try to make full use of the machine tools so as to leave as little manual work as possible.

In Russia, on the other hand, less work is done on the machine tools and more by hand. Of late, however, the workers here have begun to understand that manual labour in such a job cannot hold out against work on the machine. But work on complex machine tools demands great skill and intuition.

The first tendency in a modern tool shop is towards mechanization, towards substituting the machine for manual labour. The second is towards a greater subdivision of operations, but this does not mean that the tool-maker is going to be tied down to the

performance of one limited function. We gauge-makers want to be artists in our own particular line. One of the reasons why I would never work in Ford's factories was because the operations there are so minutely subdivided that the work loses all completeness and ceases to be an art.

I came up against the conservatism of some of the old foremen when I advocated the new tendencies. Melkov stuck to the old methods of work and stubbornly refused to adopt mechanization. The American, Quinlan, did not use manual labour but taught the young workers to grind all sorts of shapes on the grinding machines. He showed them how to use trigonometry in their work. The old gauge-makers thought the only thing was ability to size a thing up by eye or by the feel of it in your hand. But that's not enough! A good gauge-maker today ought to be able not only to work on a machine tool but also to calculate the different angles from drawings and use trigonometry to help him. Melkov sabotaged all innovations.

"What's the use of that?" he would say. When Quinlan told him we ought to use a machine tool to make the gauges, he answered:

"Tomorrow I'll do it on the machine but today I haven't time. I'll just do it this way, by hand."

We had to fight hard against him and his sort. I showed the workers that I was familiar with machine tools and this helped me a great deal. Then there was one senior foreman named Zuev in the shop. He was accustomed to the old tools and the old methods of production, but I showed him the whole technological process of production and he, together with all the workers in the shop, saw that I knew the business.

Everywhere we had difficulties to encounter, starting with the taps. They were only fit to be used on wood. They turned them out by hundreds but what happened? They would tap only two or three bolts before becoming blunt. I showed them how to fit a tap, how to sharpen it so that it would cut properly. The main thing is to have the threads of the tap made in the correct way, but they made them in the old traditional fashion, like the village blacksmith. I started making taps on a grinding machine, showed them how to sharpen them,

showed them how they have to be tempered. Then I found that we had an apparatus for sharpening taps laid away in the store cupboard. I installed this apparatus, but it was very difficult to get the workers to use it. They didn't want to use it because they didn't know how and they said it was no good. However, they came round to my way of thinking in the end and little by little all of them learned how to use it.

After about a month the manager sent for me and told me that Bryushkov was leaving and I would have to take charge of the shop. So I was left alone in charge of the shop with one assistant on labour questions—Piskunovich who was only eighteen years old—and we were working three shifts with a terrific number of rush orders.

Well, I pretty soon began to change things. The main trouble was the taps. I suggested making them out of high-speed steel and turning them out on a grinding machine instead of using this machine for the production of gauges. "Let's cut down the production of gauges," I said, "and make taps out of high-speed steel." The general opinion was that Gross had gone out of his mind. "Making taps out of high-speed steel!" they said. "Who ever heard of such a thing?" Hitherto they had made them out of carbon steel on the lathe. About three hundred taps were used every day, most of them being required for the connecting rod bolts. Now I started making them of high-speed steel on the grinding machine.

Where a tap had formerly cut fifty nuts it now cut a thousand. There was no use now making gauges in preference to taps, because the gauges were used to measure the threads of the connecting rod bolts and the taps; and there was nothing to measure if there were no taps to tap the nuts. Also, if the taps were made accurately of high-speed steel and did not dull fast, they and the nuts could be safely used without being gauged.

Another bit of rationalization which I introduced. The threads of the tap. Formerly they were not ground on the grinding machines; they were cut on the lathe, then tempered and afterwards hand ground. They even had a special profession—turner-gaugemaker for thread gauges. Sometimes specialists in this line would have the

whole factory taking its orders from them. And there were workers in our plant who thought this was the only sort of work fit for them to do.

The modern method is to cut the threads on the grinding machine. This machine is made with great accuracy out of special sorts of grindstone and it cuts the thread very cleanly. The rough turning is first done on the lathe, then the piece is tempered and afterwards threaded on the grinding machine. This does away completely with the highly-skilled work of the gaugemaker and the whole job can be done with perfect precision.

So we worked on and the first winter came round. That was pretty tough—the workers of my shop were living in unheated rooms at that time. People would come to me and ask to be paid off—wanted to quit. I talked with them and persuaded them to stay on, refused to dismiss anyone. The turner Pogrebnoy came to me and told me his wife and children were just about freezing. He himself kept warm by staying in the shop and didn't want to go home at all. But somehow or other I managed to talk him round, told him to wait a bit and stay the winter. I refused to dismiss anyone for I knew that if you let one go, the next minute everybody will be wanting to quit. So I didn't let anyone go. Well, whatever happens, I thought, we'll have to stick it out. So we stuck it out, knowing that better times would come. I myself was living in house No. 505 where the heating boiler was out of order.

At that time we were making our first crude experiments in production of blanking dies, very primitive stuff, of course—and I gave instructions to design some machine tools for the grinding of worm hobs and thread milling cutters. But the most important change was the reorganization of our brigades.

Up till then our brigades had been organized according to what machine tool the men were working at. If a part had to be turned, threaded and lapped (hand ground), it was done by three brigades—turners, threaders and grinders. Now the whole tool was made by a certain brigade. Each brigade had one machine for every necessary operation and the tool did not go outside the bounds of the brigade

until it was finished. We appointed a responsible leader and told him: "Here you are. Get busy and see the tools get made." In this way we organized brigades for taps, for milling cutters, for dies, for jigs, everything. In a brigade of this sort every operation, from the first to the last, is done by some member of the brigade. Up till then no one in the brigade had been made responsible for the tool that was being produced. The tool went to and fro among the brigades of turners and grinders and no one could tell who'd done the damage if it was spoiled. Now the worker knew his brigade was responsible for its tool from beginning to end. If we got an urgent order, I would entrust it to one comrade alone. "Here you are," I would say. "You be responsible for this."

The whole time I kept in close touch and consulted with the Party organization. Miroshnikov gave me a lot of help. He was an uncouth sort of fellow but he had plenty of energy in him. I first came in contact with him when I was registering myself as a Party member. The first question he asked me was:

"Will you introduce piecework?" (He was senior rate-fixer in the shop.)

"Yes, I'm in favour of piecework," I answered.

"If you're in favour of piecework, that's all right then," he said and put me on the register right away.

Only ten per cent of the workers were doing piecework at that time. The foremen found it more quiet and peaceful to have time payment while with piecework you have to be on the alert the whole time. The senior foreman Zuev "had no objection" to piecework, but then that was just the trouble with him—he agreed with everybody about everything. I haven't much respect for people like that.

I was of the opinion that cost accounting and piecework would give an incentive to the workers of each brigade. If you have cost accounting, you get a clear idea of how things are going in the shop, of how the work is being done. But I had no one to do the accounting. In fact there was a time when we had nobody in the shop who could keep accounts or hand out wages, and I myself had to

spend the day off sitting in the office and giving out wages to the workers. So I went to the manager and laid my request before him:

“Let me have four bookkeepers.”

He burst out laughing.

“Why, does your shop really want four bookkeepers?” he asked.

“Yes, it does. If you don’t let me have them, I’ll have to start bookkeeping myself.”

My hours of work that winter knew no limits. I’d get home maybe at two o’clock in the morning and then before I could turn in, there’d come a telephone call from the shop and I’d have to go back. But I had plenty of energy at that time and enough patience into the bargain. I always kept my temper and never bawled people out. At first everyone was surprised at the way I never swore. At the managers’ conference the others would say hard things about my shop and I’d only smile and not get sore. Nowadays I’m not quite so good at holding myself in.

Well, I got my four bookkeepers at last, after a bit of trouble, and these four bookkeepers decided the fate of my shop.

“Come on, Feodor Feodorovich,” I said to my assistant, “Let’s have cost accounting from now on.”

We sat up six nights running working out the figures for cost accounting. We broke our heads over these figures, calculating how much turnover capital we needed. We had to find out how much this or that tool cost us, reckon up every single item of expenditure, figure out how many screw-taps were wanted, etc.

It was cost accounting that showed me the real way to work. At the end of the month we were able to say exactly how much the production of any given tool cost us, how we had been working, how much capital had been spent on unfinished production. We knew where we had to put our shoulder to the wheel so as to speed things up. Altogether cost accounting’s a most interesting business if you go about it in the right way—it’s as fascinating as a game of chess.

We built our first machine tool for thread milling cutters, but we had no luck in the beginning—our first egg turned out addled. Then the American designer who’d been working on the job went away

and I handed it over to Bystrov. We completed the building of that machine tool. Such machines are not generally on sale; each firm builds them for its own use. Then we went on to the job which interested me more than anything else—the complex production of thread milling cutters, taps, adjustable reamers, faces for holes, etc. We designed a machine tool with hydraulic feed for the production of blanking dies. This was the first hydraulic feed machine tool in the Soviet Union. The very name—“hydraulic feed”—was enough to scare people in those days. A certain oil pressure is produced by pumping and this sets the table of the machine in motion. So we made a machine with hydraulic feed for the grinding of blanking dies, using the mount and the cast-iron parts of an old machine tool. Previously we had made blanking dies on a planing machine and spoiled about ten of them a day.

The second machine for the grinding of thread milling cutters turned out a failure at first. The oil got hot and the machine refused to work. But I soon saw what was wrong—the oil tank was very small, the oil had no time to cool and heated up so that the machine stopped. So we took the machine to pieces right away and remade it and now it's working fine. We never made any fuss when new machines started work. No pomp or ceremony—we just took it all in the day's work.

One machine in the mechanical shop had stopped work on account of the pump being broken. It was a machine made by the American Oil Gear Company. We had no spare pumps and the machine was standing idle for four months. We began to think: “Maybe we might be able to make a pump like that?” I consulted the workers about it, spoke to the foremen Kotelnikov and Makhayev, and we decided we were going to do it.

So we started making sketches and drawings. Our first difficulties arose when we tried to cast the cylinder drum. Six times that cylinder was cast out of bronze and each time the cast was spoiled. At last, however, we succeeded in casting it well. We installed the cylinder and it worked alright. Then we set about making the whole pump. I remember how we'd finished everything

else and all that was left was the apparently very simple but really very difficult job of heat-treating a spindle of very complex design. No sooner was the heat-treating done than she would break. Kotelnikov was in despair. He came to me and said:

“Nothing doing. We’d better chuck it.”

“Let me try my hand at it,” I said.

So I took the job and did it myself. It went quickly and smoothly, I was afraid I might make a hash of it as the last time I had done heat-treating was before I left America. It took me just forty minutes to do. The secret of it is that you must know how to maintain the temperature and put it into the water in just the right way.

That’s how we made our first “Oil Gear” pump.

One day a fellow comes to us from the Scientific Research Institute for the Auto-Tractor Industry and says:

“It would be a good thing to make a Bosch pump! The manufacture of this pump will decide the question whether we can make our own Diesel.”

The “Oil Gear” is a centrifugal pump but the Bosch is a small pump of an internal combustion engine. It has a six millimetre cylinder which requires adjusting with the utmost precision. It has a spark plug going the whole time. The oil is supplied by the pump under high pressure, is sprayed, mixed with the air and goes on burning strongly throughout the entire travel of the piston.

We made two such pumps in one month, and experiments showed that our pump worked more smoothly than those of foreign make. This was a great triumph! The chief engineer of the factory, Comrade Satel, said that to make a Bosch pump was a bigger achievement than to put out twenty-five tractors a day. The pump decided the question whether we could make our own Diesel tractor or have to import pumps from abroad. *

It was just two months after this that the Kharkov Tractor Plant sent and asked us if we were thinking of building a Bosch pump. We

* The production of a fast auto Diesel (40 h.p.)—the first of its kind in the U.S.S.R.—was completed on November 17, 1932, at the Stalingrad Plant.

had great satisfaction in answering them that we weren't thinking about it, we had built one already.

Our tool shop was designed to produce special tools of a non-standard type. It was thought that blanking dies, being a standard type of tool, would be manufactured at special factories. However, a lack of these complex instruments arose and it turned out that no one was making them. The Calibre and Freser tool factories were supposed to attend to this line of production. What have they done about it? Well, I have before me a letter from the Freser Plant near Moscow asking us if we couldn't start making blanking dies and cut out the importation of these instruments from abroad. I answered them that they ought to be ashamed of themselves asking the Stalingrad tool shop to do that, let them be good enough to organize the job themselves—that's what they were made for. However, they have taken the line of least resistance and are turning out nothing but drills up to date.

We took a different course. But nevertheless we are already confronted with a very big problem—the problem of the machine tools, which are wearing out. These powerful “Natco's” and “Ingersolls” won't last forever, and when I walk through the shop past these complicated machines the whole intricacy of this problem rises up before me in all its scope. I recall the town of Rockford in America where the “Ingersolls” are made and where the production of these machine tools has been completely standardized. There are machine tools and machine tools. England is very conservative in the matter of lathe-building. Look at this John Lang lathe—an English one.

Twenty years ago I saw this lathe just as it has remained up to this day, with its great weight and clumsy outlines. America is different. There they are on the lookout for innovations, introduce changes and make a type of machine tool with the maximum strength and the minimum weight. And this is the sort of machine tool we ought to make.

From the town of Rockford, from the chief constructor of the Ingersoll Plant, Paul Gerl, I have just received a letter saying that he

wants to come here with a group of designers. Paul Gerl's services ought to be used. My general rule is to take from every worker all that he is able to give.

How about my work as head of the shop? Every head of a shop has his good and bad side. They say of me that I know how to handle people. If that is so, it is mainly because I listen attentively to every worker and try to put myself in his place, to understand his position. Now I no longer demonstrate the details of a technical process to the workers directly. I transmit my experience to them through the foreman. But when I first came to the shop, I went to the machine tools, and myself showed the workers how to sharpen a cutter. In this way the whole shop could see that I was master of my trade and that it's not so easy to fool me. Even in questions of rate-fixing you can't get round me too easily. If a worker says without grounds that his assignment is too high I tell him:

"Well, how much time do you waste? You say the assignment's too large? Let's have a look and see."

And then I sit down with him and reckon it all out carefully and make him understand that his assignment isn't so terrible after all if he puts his back into it. It's always been my habit to probe into all the subtleties and niceties of my job. Not in vain did my Uncle Aaron once say of me: "Louie, you'll be a gauge worm someday."



Earth

I. S. PASCHENKO, Chief of the Earth-Mixing Department of the Foundry

I came back to Russia after a quarter of a century's absence. When I secretly left the country in 1905, it was known as the Russian Empire. The country to which I returned bears the name of the U.S.S.R. The reason why I "went on my travels" was my failure to get on with the government of Nicholas II.

I was born in 1870 in Vassilyevka on the Volga. At the age of fourteen I went to work as a gardener's boy for a gentleman named Rayevsky. He had a trained gardener from St. Petersburg who taught me what I had to do. However, I'd pretty soon had enough of digging flower-beds and collecting caterpillars from the shrubs—not much fun in that business—and after that I went off to Saratov, to work for a merchant named Polyakov on a timber wharf. And later my father and I managed to buy a plough and took to farming, working as peasant farmers up till 1903. So I married and settled down.

In the shipyard at Saratov where the ships were brought for repairs I got acquainted with some factory workers—two fitters, one

named Smolin, the other Marusinov. They used to talk to us young folks about politics. That was on the eve of the war with Japan and political feeling was running high. I was caught up in the movement and began holding meetings in the village school. I got a reprimand for that from the magistrate: "Just look out what you're doing," he told me. "Holding meetings without permission..." Well, we weren't very violent in those days; we talked quietly and peacefully about getting His Imperial Majesty to introduce control in agriculture. We sent our resolution to the Saratov revolutionary committee in Sergiev street. And we sent a delegate named Shatkov to Saratov, who was promptly arrested and shot. A punitive expedition was sent to our village. They surrounded Shatkov's house and came to look for us too. But by that time I had got away and was making for the frontier.

"The police officer from Trofimov is coming to get your Ivan." So my wife was told by the priest, and the rumour went round that Paschenko was going to be arrested on account of that meeting and the resolution we had drawn up. But I had said goodbye to the village of Vassilyevka and got to the frontier at Verzhbolova. From there to Eidkunen, from Eidkunen to Hamburg and so by sea to America.

So I came to New York and soon lost myself in that terrible, great city. Those long straight streets confused me. I would walk on and on in a straight line all the time and suddenly the street would come to an end without any warning! Afterwards of course, I came to understand that the lay-out of streets is really very simple and straightforward.

I got a job in Chicago, in the McCormick Factory. That was in 1906. And the first thing I noticed was that if you are a foreigner and don't speak the language, they at once label you "greenhorn," give you all the dirty work to do and make you slave like a cart-horse. The job they gave me was to cart odds and ends to and fro in a wheelbarrow.

Well, I went on wheeling that wheelbarrow for two weeks, but luckily for me I had sense enough to see what I must do in order to get rid of that job. I went to the boss and treated him to a drink. I stood him one drink, two drinks... and he transferred me to another

job—moulding. (The boss was an American, Dick Bell.) I got on better at that job and I can say now that I've been through the whole foundry business in America and seen how it developed from hand moulding to machine moulding. Moulding at that time was still a manual job and we had to burrow in the earth like moles. We poured the metal ourselves and then pounded the earth, mixed it and poured again. It was all done by hand. We had a hoist to lift the heavy weights but the moulding we did by hand.

The most difficult thing of all was to mould the great cogged wheels. We'd have four men on the job, watching out all we could, but before you knew it, there'd be a cog broken and the pinion gear spoiled. And we were on piece-work rates—sixty dollars for a hundred wheels, and McCormick and Co. had no use for bad wheels.

Later on, when I'd had time to get well acquainted with the moulding job, I received a letter from a friend in Detroit. He had escaped from Russia and had started work in Ford's factory.

"We're getting five dollars a day," he wrote, "and what sort of money do they pay you? Throw up your job in Chicago and come to Detroit."

At that time Ford was declaring himself to be the "protector" of the working class, he was paying five dollars a day and McCormick's were only paying twelve dollars for six work days. No sense in staying on at McCormick's! So I went to Detroit. My friend Lyman met me there (his real name was Saitzev, but Lyman was his nickname) and took me to the Ford Plant where I started as a moulder. That was in 1911.

The Ford Plant was different in those days. There was a machine shop and besides that a foundry—a low one-storied building like a barn. The work was not superintended at all. A worker would begin a moulding and then say: "You finish that off, will you? I'm going home now." You could get out on one side where it was not fenced in and so home. There was nothing strict about it and the factory was not yet fenced in all round. That was in Hayden Park. There was no assembly department at that time and the cars were put together by hand.

Then Ford began to extend his works and invited engineer Martens to come and work there. Martens was a young German and he introduced strict discipline. They fenced in the factory and built a gate and tightened things up all round. We began to fix things up among ourselves like this: "You go to work today and I'll stay home. You take down my check and I'll take yours tomorrow." However, Martens found out about it and did away with that system, introducing one of his own. They had clocks which marked the hour and minute when we arrived. So that put an end to our picnic.

When I had been working five years as a moulder I came in contact with Ford. Engineer Bellons, seeing that I knew my trade, appointed me an inspector to check up the composition of the earth used in moulding. I would go to the laboratory now and again and Ford often used to be there. He always went bareheaded. His hair was grizzled at that time—it's white with age now—and he was tall and thin. He took an interest in the earth and understood that the foundry business depends on the earth that is used. When he met me he would always ask:

"How are things going with you?"

I would tell him that we were trying to find some real good earth which we could use permanently.

"I'll give you a present for that," he would say. "But mind you don't waste time unnecessarily."

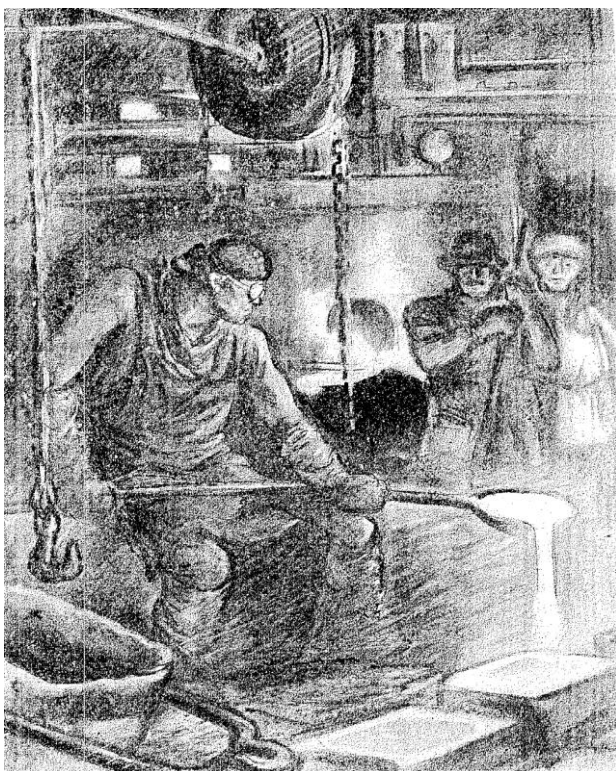
After work, when we went to punch out, the watchman would stop now one worker, then another, and give them a cigar, saying, so that they would remember:

"Mr. Henry Ford is giving you a present."

He liked people to remember him and talk about him.

We saw the Ford plant grow up under our eyes. Only the chassis was now made at Hayden Park, while all the rest of the plant was transferred to River Rouge. There he had a real conveyor system. The moulding machines stood on copper screens. When the earth was pounded, the vacuum cleaners underneath sucked up all the dust with their sixty horsepower motor. The earth was not allowed to fall on the floor; it fell through the screens and was carried away through

a tunnel. They had a special man there to look after the screens and clean away any dust that was left. The walls of the shop were white



The Moulding We Did by Hand

and were frequently re-painted so as not to get dirty. Great emphasis was laid on cleanliness and attention to detail.

If the foremen, when walking around the plant, found anything lying about, they didn't pass it by but picked it up and put it back in its place. In Ford's eyes the best worker was the one who was most careful with things. "We make big things out of little things," he would say. On one occasion a worker who did not yet know Ford came upon him in the works and noticed that he had left some rubbish lying around. "Hi, stop that!" he said. And Ford thanked him for having reminded him.

So I worked on at Ford's until 1929, till the day when some comrades from the Soviet Union came to visit us in Detroit. Their names were Chernyshev, Filzer, Gorokhov and Ossipov, the last-named coming from my part of the country, near Saratov. I started showing them everything connected with my job while they listened carefully and took notes on everything I told them.

"Why have you come to a bourgeois country?" I asked them.

"To study this business," they said. "We're going to build a new factory, like what you've got in America."

"Where?" I asked.

"At Stalingrad on the Volga—Tsaritsin it used to be called. We're going to make tractors."

"Do you want a plant like McCormick's?"

"No, we want a better one. McCormick's puts out 120 machines a day, but ours will put out 150."

Well, I showed them everything, told them everything they wanted to know, and all the time I was thinking: "Paschenko, you've become an understrapper of Ford's and meanwhile what things they're planning over there in Russia!" And already I was beginning to waver. I had forgotten old Russia—what cause had I to remember the old Russian Empire? And here my fellow-countrymen were

telling me that there was nothing left now of the imperial power and everything was being built anew.

Of course, even before this I had been interested in how things were going with the Bolsheviks. In 1928 I attended a bourgeois meeting in Detroit which discussed the question of whether to trade with the Bolsheviks or not. Those who wanted to trade with the Bolsheviks said to their opponents: "If you sell materials at such and such a price, then we won't buy from the Bolsheviks." Their opponents answered that America could not produce such raw materials as Russia could, that Russia had better flax and better oil.

"We can't sell at the same price as the Bolsheviks," they declared.

"All right then," said those who favoured trade, "if you can't, just keep quiet, and we'll buy from the Bolsheviks."

But that was only a meeting. And here were living people who had come from the Soviet Union and could tell about their country.

I used to visit the Workers' Hall where I collected an orchestra of string instruments—the Echo Orchestra it was called—and played melodies with them. We had eighteen players and I was conductor. We used to play various workers' songs—American and Russian—and these songs, the tunes of which kept running in my head, somehow impelled me to look ahead, to think of the future and to ask myself: "Are you going to go on serving the bosses all your life, Paschenko?"

One day Chudnovsky came to see me. He is a Russian and has worked as a modeller from his childhood up. He had left Russia too and was superintending the modelling business in the Packard Plant. Well, he persuaded me to quit America and go over to the Bolsheviks.

"I'm going," he told me, "to fix things for them as a modeller, but I'm afraid I shan't find people there who know how to mix the earth properly. Come along," he said, "let's go and work there. How long have you been at Ford's?"

"Nineteen years," I answered.

“Well, you’ve worked long enough for Ford then,” he said. “Try working with the Bolsheviks. Then, if you like, you can come back to Ford. Make up your mind, Ivan.”

I kept silent, thinking it over.

“Let’s go,” he said again. “Let’s show the world proletariat that we’re able to set a factory going.”

But I still had my doubts. The bourgeoisie of America were saying that although we were selling them machines, their new factories would never start work and the crows would build their nests in them. They had no real engineers or skilled workers either, so how could this freak plan of theirs succeed?

However, we decided to go—Chudnovsky as a modeller and I as an earth specialist. I was fifty-nine years old at that time and he was fifty-eight.

Bellons, Ford’s nephew, told me that Ford would be in the office in Hayden Park at 9 a.m. next day. I came at nine o’clock sharp and found Ford sitting in his office on the second floor—the room, as usual, spotlessly clean. “Hello, hello”—we exchanged the usual greetings and then I said:

“I want to go to Russia to visit my daughter and to see what the Bolsheviks are doing there.”

He laughed and said:

“All right. But mind—you have worked with me for some years and if you don’t come back on time, all that much will be lost to you.”

If a worker stays twenty years with Ford, he is supposed to get a pension. But that only happens in one case out of ten thousand. Generally, when he has worked eighteen years, the worker somehow or other gets the sack. * I might perhaps have received a pension since I worked together with Ford’s nephew, Bellons, who thought a lot of me.

Ford looked at me and noting that I was still hale and strong, he said:

“You are not old yet, but I am already old.”

Indeed he appeared thin and frail.

“I have a large family,” I said, “and they’re scattered over the whole world—some in Russia and some in America. I’ve got to see my daughter.”

“I have a family of 175,000 in America alone,” he said sanctimoniously (he was referring to the workers employed in his factories). “And how many have I in other countries? But all the same I stay here at my post, as you see... Very well, go,” he added with a sigh.

He gave me ten months’ leave of absence and I went to the Soviet Union, to work in the Stalingrad Tractor Plant.

I came to the plant and examined it carefully. It was well built—a fine piece of work. Here and there, however, I saw room for improvement in the arrangements and decided to make suggestions.

Engineer Rybakov asked me: “Where should we take the earth from?” I told him that no special kind of earth was needed, I could make the composition out of yellow sand and coal dust. I did everything as I had learned to do it in America, mixing 12 per cent coal with the sand. I was given charge of the earth-mixing, including even the laboratory side of the business. The composition which the laboratory had been producing up to that time was no good at all—they hadn’t yet succeeded in preparing any real earth. The chemical ingredients of their composition were all wrong. I made them a composition of 8.5 per cent strength, 8.5 per cent moisture and 85 per cent gas tightness, and they accepted it at once.

Of course, the engineers put me to the test. They wanted to make sure if this fellow Paschenko really knew his business or not. Once Skvortsov, the head metallurgist of the Plant, rang up our laboratory and said: “Tell Paschenko to take some earth with 120 per cent gas tightness, 9 per cent strength and 5 per cent moisture and make earth with 60 per cent gas tightness, 4.5 per cent strength and 2.5 per cent moisture.” He obviously wanted to see how I could change the composition of the earth to an exact percentage. It was an easy job for me. I chose a soft soil, added two shovelfuls of coal dust and the gas tightness decreased. I calculated everything exactly, took the earth into the laboratory for an analysis and verified it. I made it just

as he required. If he had wanted 140 per cent gas tightness instead of 120, then I'd have had to think twice before I selected the earth to be used, but as for "killing" the tightness—that's an easy matter. Yes, earth is a thing which I can claim to understand.

Ivanov, the first manager of the Plant, told us Americans: "If you don't like us Bolsheviks, don't let that stop you from using your American brains, but if you do like us, then remember the position is difficult and help."

Well, I saw the foundry was in a difficult position and to the best of my ability I tried to get it out. There were many difficulties to cope with but I think we can claim to have had some success.

In the autumn of 1930 foreman Severov from Leningrad and engineer Protopopov from Moscow came to see our foundry with a view to making improvements. They visited my earth-mixing department and wanted to be given a free hand to experiment with the earth. Now I know what a capricious thing earth is, how it doesn't like to be mixed first this way and then that. So I met them as they entered and said:

"Give me your recipe for mixing the earth and then I'll let you in. Otherwise, I can't admit you, seeing that I am fully responsible to the management of the Plant for everything that goes on here."

They hemmed and hawed a bit but I insisted.

"You take upon yourselves the responsibility for the experiments, give me your recipes and I will do as you direct under your supervision. That's how I'm accustomed to do it."

So they wrote out their recipes—Protopopov and Severov. I read them of course and then I looked at Protopopov:

"Are you an engineer?" I asked him.

"Yes," he answered.

"Your recipe, if you'll excuse my mentioning it, is in contradiction to that of Severov. The composition of the earth is supposed to be the same, but the idea is different. In other words you have no precise conception of what you want and your recipes are therefore incorrect."

Then Protopopov said:

“Follow Severov’s recipe.” And he turned on his heel and went out.

I prepared the earth in accordance with Severov’s recipe, put it in the bunkers, saw it pounded and noticed that after the experiment the metal came out quite pure. Pudalov called me and asked:

“Well, is the metal pure?”

“Yes, it’s pure enough but you look at it two days from now when these parts are assembled.”

“Why, what do you mean?”

We went to the assembly shop to where the cases and pistons were being turned on the lathe.

“Be good enough to look for yourself,” I said. “Outside, the metal of these parts is pure and good, but inside there are flaws. The recipe was incorrect. It contained a lot of a certain sort of sand in which there is glass and this forms pockets inside the metal.”

Pudalov and Akarovsky, the head engineer, called me up to the office. “Do it in the old way, Paschenko,” they told me. I said that if we went on mixing the earth in the old way, we’d have to stop the Plant. We had to get a better composition of earth somehow. “Well, chuck away the new mixture, anyhow,” they said. I threw out two-thirds of the earth prepared in accordance with Severov’s recipe, left one third of the old mixture and used fresh yellow sand for the remaining third of the composition. Severov’s mistake was that he took earth fresh from the ground, that is to say, moist earth, whereas I chose earth that had already been used before.

Earth plays the most important part of all in the foundrymen’s job. If you don’t understand earth, you will get spoiled metal. We discovered and used a sort of yellow sand in which the grit conserves the gas tightness. The very best sand is that in which the grits are octahedral. It is called gold sand and when it is used there are no flaws in the metal. All the time I have been here I’ve taught the men to appreciate the value of earth. I tell those who help me with my work:

“Never mind if our job is a dirty one. It’s the most vital process in the whole Plant because the quality of the metal depends on the

quality of the earth; you ought to be proud of your position since it is your work that sets the whole foundry going.”

This is a lesson that has to be well rubbed into everyone. And in our shop there were some who had lost their taste for work on account of the dirtiness of our job. One time after I had been taking note of all the disgraceful things that happened in our shop—of the people who worked when they felt like it and idled when they didn’t—I got up at a meeting before all the foundrymen and said:

“Listen, you’re paying me dollars”—as a matter of fact, I had already renounced my right to be paid in foreign currency, but I wanted to scare them—”and you don’t know how to take care of your own property. I’ve a great mind to quit on you and go back to America,” I said, threatening them. “You go squandering your own money,” I said, “and don’t give a damn. Look at Ford and take a leaf out of his book. He’s got trainloads of property but he takes good care of everything—if he saw a penny on the pavement he’d stop and pick it up.”

And I told them the following story.

I was on duty in the foundry at the Ford Plant. I saw Ford coming around and just in front of him came the foreman, a Polish fellow. The foreman, as he went by, did not notice that two nails had fallen on the floor. Ford, however, spotted them at once. He stooped down, picked up the nails and stopped the foreman. “Did you pass this way?” he asked. “Yes, I did,” answered the foreman. Ford held out his hand and showed him the two nails. “Nothing was here when I came by,” said the foreman. “Weren’t these nails here then?” Ford asked him. The foreman grinned but Ford said: “What are you laughing at? There are 175,000 of you and two nails each make ten barrels of nails. I’ve no use for men who manage like you do!”

It’s quite true that we ought to keep strict watch over the smallest thing.

Well, my year came to an end and still we weren’t working as we should. Chudovsky said with a sigh: “It’s kind of a sad end. Here we are going away and the Tractor Plant hasn’t yet worked up to capacity.” “Going away my hat!” I said to him. “There’s a lot too

much for us to do here yet.” Of course I stayed on and didn’t “quit on them” after all. I stayed on and taught them how to handle earth at Kharkov and at Chelyabinsk as well. They reached capacity output but still I didn’t leave.

Bellons wrote me from America saying the papers there were writing that a giant factory had been built in the U.S.S.R., but that tractors were only coming out of it at the rate of three a day. “That’s wrong,” I answered him, “your papers are lying.” And I sent him the figures showing our daily output of tractors. They believed me in America I suppose, because I’d worked with them for twenty years. And now my son writes to me from Detroit that they’re asking him there: “What’s your father doing these days? We’ve heard he’s turning into a Bolshevik.” Well, I’m a long way from being a Bolshevik yet and what’s more I’m an old man—sixty-three years old, but still able to see the earth gets mixed as it should.

But never once have I had a chance to travel about the country and see what has become of it. My work keeps me from going. I’m afraid to entrust it to anyone else, can’t tear myself away from it. When I take a handful of earth in my hand and feel it over with my fingers, I’m already figuring out whether it will be suitable for our work or not. And I have a big laboratory to work in now, with fine equipment in it such as no one would have a right to be discontented with.

At six o’clock every morning I go to set the foundry in operation. My first duty is to test the motors and conveyors. I have sixty-four motors under my charge and I never entrust them to anybody until I have first inspected them myself. I have charge of the whole foundry shop during the morning shift. Once I was ill and couldn’t come to work. Aphanasiev came running to fetch me. “Come on, Paschenko,” he said, “you’ve got to start the foundry going.” All very well, but I had a nasty touch of rheumatism. However, he helped me on with my boots and off I went to the shop.

First thing, I always set going the drums, the conveyor, the elevator and then the earth mixers and the “apron” conveyors. I take a look to see how things are going and when satisfied that

everything's O.K., I pass on to the second group of units. I set going the inclined belt, which carries the earth into the bunkers of the moulding machines, and then the belt to the mixer. I take another look—everything's going alright and I go on to the third group of units, set going the transporter-shaft, the third inclined belt which carries the earth from the central bunkers. Behind me come six workers. We see that the earth finds its way into the sixteen bunkers which are waiting to receive it. It takes us two minutes to attend to each bunker and in thirty-two minutes the supply of earth for the moulding process has been assured.

Now everything is running smoothly.

Looking up, you see how the earth is falling from the bunkers into the moulding boxes, you see how at first the belt of the conveyor faintly stirs and the whole shop comes to life. Take a look round and you will see how much cleaner the shop is than it used to be, how every worker is standing at his place, how all work without fuss or muddle. It has become a real foundry now.

Yes, there have been changes in our shop and there have been changes in America too. I sometimes receive letters from them asking me if I am coming back. No, I'm not going back to Ford's. My friend Joseph writes me that Ford has put a padlock on his gate now. When people came to him asking for work and bread, he fired upon them. And Joseph's son has had to give up studying music—such things are now beyond people's reach.

I get many letters from America. Soon after the Soviet government decorated me with the Order of Lenin for my work, I received a letter from Andrew Shadko, a moulder at the Ford Works. It is dated June 13, 1932, and runs as follows:

Dear Ivan Terentyevich,

In reply to your kind letter let me thank you for sending me such a quick and punctual answer.

I don't doubt your achievements in the Soviet Union since I know your steadfast character and your great precision in work.

Besides that, like a thinking man, you have seen much farther ahead than all your friends, who've remained here, put together.

Even the yellow bourgeois press had something to say about your services, though it did not fail to ascribe your achievements to the influence which America had upon you, and to your being an American citizen, though born in Russia. What will be your reaction to this piece of news, I wonder?

Regarding the achievements of the Soviet Union in the sphere of industrialization and agriculture, the bourgeois papers declare that a menacing competitor in the world market is springing up under their eyes and with their help.

As regards outdistancing America, you will easily do that during the second Five-Year Plan. Another thing which will help you in this is the emancipation of your women from household drudgery to which they were once condemned.

Both the present and the future generation of American citizens are being trained by the bourgeoisie not to utter any protest against the present despotic order of society. With us it is nothing wonderful or strange to see poor fellows roaming the country with a knapsack on their shoulders. The vulgar literature which is read by the youth imbues them with the idea of becoming Rockefellers, tyrants of the working class, when they grow up. And there are more and more poor people in this country. You have probably heard already how Ford shot down our fellows at Dearborn?

My words will confirm you if you have occasion to speak before the Russian workers at any meetings.

Andrew Shadko

I read this letter to the foundry workers of the Tractor Plant.

A Tractor Every Five Minutes



S. M. TALALAYEV, Shift Foreman on the Big Conveyor

“Most Gracious Lord, vouchsafe to grant us the Spirit of thy blessed. . . .”

The lesson was beginning. For five years, from spring to autumn we children took turns at reading this prayer before lessons, a prayer which incidentally contained such phrases as this: “Hearkening to the doctrine that is taught us, may we grow up to the Glory of our Creator and to the benefit of the Church and the Fatherland.”

At the age of fourteen I ceased hearkening to the doctrine. They reckoned that was enough schooling for me.

My father was working at the Kolomna Machine-Building Works. He said to me:

“You’re grown up now and we’ll have to think of making a modeller out of you.”

But I didn’t fancy the trade much. Modelling seemed a dry, lifeless, uninteresting sort of job. Even at that time I secretly dreamed of machines. I liked the way a machine begins to snort and pant and suddenly springs into motion. I often went to look at machines in action and feasted my eyes upon them. They made them in our works at Kolomna. I saw them there glistening with oil as though bathed in sweat. Gleaming with polished copper, they chugged, whistled, noisily emitted steam. I thought of the time when I should create such a machine with my own hands—that would be a proud moment indeed! And so, to cut a long story short, I refused to become an apprentice in a modeller’s workshop and started learning to be a fitter.

The years passed. The Revolution came. I was now an experienced fitter and assembler; I worked for a time in a gun factory, then in the Karl Marx factory in Leningrad and in the Red Vyborg Plant, then in a munitions factory again, and then back to Kolomna to work in the sub-station of the Moscow electric power system. And it was here, while working on the installation of some electrical equipment, that I met an acquaintance of former days. We exchanged greetings. “Where are you working?” I asked.

“I don’t live here now,” he said. “I’ve only come to Kolomna for a visit, come home for vacation. And my permanent place of work,” he said, “is Stalingrad. They’re building a new works there—a tractor plant. That’s going to be a plant in a thousand. Every five minutes they’ll put out one tractor.”

I looked at my friend incredulously. What sort of a fool does he take me for, I thought.

“Here, chuck it,” I said to him. “Quit fooling and talk sense, can’t you?”

I couldn’t get myself to believe that a complicated thing like a tractor could be put together in five minutes. I knew what tractors

looked like, for once, when we were on an excursion to the countryside near Kolomna, we had seen a Fordson and a Caterpillar at work. How could you build a machine like that in five minutes? My friend must be talking through his hat.

Still I was interested all the same and I went off to Stalingrad to work on the Tractor Plant as an assembler.

No sooner had we alighted from the train than it was clear to me that this factory they were building really was something out of the ordinary. The all-pervading influence, the pulsating beat of the great construction job that was under way could be sensed even on the railway station. We saw freight car after freight car pass us by with the label "Tractor Plant" pasted on it. We saw the room in the station building with people on duty night and day to receive the hundreds of workers who were flocking to the Plant. We saw trucks all bearing the same inscription—"Tractor Plant." Our ride from the station took us past the Red October Plant and out to the open steppe. On our right lay the gleaming surface of the Volga, on our left was the railway with its freight trains loaded with machinery packed in wooden cases, and closed cars filled with cement, and everywhere, on every car and packing case were the same words—"Tractor Plant."

Could it really be true that they were going to build such a monster factory that they could turn out a tractor every five minutes?

Next morning I saw the machine assembly shop—that same shop in which I was destined to work. It was empty then and the glass had not yet been put in the windows. Its gigantic dimensions literally stupefied me at first. "That's something like," I said dazedly as I gazed around me. How many machines would we have to install here, I wondered.

Well, we set to work. We fixed up tool boxes, edged the joiners' benches with iron and screwed vises on them. Then we got busy organizing a storeroom for the first and third departments. There wasn't much to do at first—only a few trifling jobs. I was free to walk around the whole plant and I went to see some of the other shops. In the forge they were fixing up the presses. We saw the huge

pits there, dug out for the presses and hammers, and there were people going around with blueprints and measuring instruments. The whole building was in an uproar—what with the clattering of building machines, the loud pulsation of pneumatic hammers and the clang of metal. Bricks, timber and every conceivable kind of building material were being brought into the shop all the time. All was movement and bustle. Anyone could see that a giant factory was being built.

Pretty soon the first lot of machines arrived and we had hot work from then on. The first machine we had to assemble, I remember, was a machine for the grinding of distributor shafts. We worked all day and even when night came we didn't want to leave. The men who were hauling the freight would break open the packing cases and we would find the machines all taken to pieces. However, each part was carefully marked and we fitters set about assembling and installing the machines like mad, working as fast as we could.

The great shop now lay stretched out before us like some gigantic geographical map. It was all divided up into squares and each square was numbered. Each machine had its place and number.

We prepared the places for the machines, boring holes for the motors and laying strips of wood to make the machine stand perfectly even, according to the level. Then, together with the freight workers, we would set the machine in its place and pour concrete into the holes. In two days' time the machine would be dead set.

Thus, little by little, the huge shop began to fill up with machines. I had already learned by now that a tractor consists of seven hundred and fifteen parts which were to be turned out in our plant and of a large number of standard parts which we were to obtain from outside. Seven hundred and fifteen parts mean seven hundred and fifteen separate rivulets of production—seven hundred and fifteen tributaries converging into one mighty stream. I was beginning to grasp the essence of conveyor production. The parts would be passed on from shop to shop, from department to department, from machine to machine, until at last they arrived in their completed form at the conveyor, their place of assembly.

But what was a conveyor exactly? I didn't know. There was no conveyor in the shop as yet.

"This is where the conveyor is going to be," they told us, pointing to the vacant strip that extended right down the length of the huge shop. But none of us could say exactly what it was going to be like.

In May 1930 I was put on assembling. "Assembling" I call it, but there wasn't anything to assemble yet and we saw no more of the conveyor than we had seen before. Our brigade was kept busy getting things ready, making tools for the assembly work—braces and bits, point-tools, chisels, etc.

Then the rumour began to go round—"They're bringing the conveyor." It seemed to us as if the conveyor was the embodiment of the highest American technique. The conveyor—so we thought in those days—was the key to American mass production, the thing which caused such magic swiftness in the output of tractors—one machine every five minutes.

Then, lo and behold, they brought the conveyor to us. That was an event. The workers of all the other shops made a pilgrimage to ours, workers came flocking from the neighbouring factories, excursions came from Stalingrad and other towns.

And yet there was really nothing much to look at. Just a ribbon of iron stretching for two hundred metres. That was all. No, the secret did not lie there. That was plain to us at once.

The work of installing machines was pressed forward at full speed. We began to work two and even three shifts.

"The Plant will soon be opened," the word went round.

The manager Ivanov told us we would be assembling tractors soon. In the mechanical repair shop they were turning out the parts for three experimental tractors.

"Time to start learning," said the manager, and he made us divide up into two groups—one to assemble the engine and the other the tractor itself. "Bring over a tractor from the Factory School," the manager told us, "take it to pieces and assemble it again until you've learned to do it with your eyes shut."

We brought the tractor in and took it to pieces. We began cleaning it, washing it, assembling it and taking it to pieces again. I was in the brigade which worked on the engine and had to assemble the gearbox.

The conveyor was all assembled by now. A painting room and a drying room had been built and were tested. A machine entered the painting room and emerged a few minutes later, wet and glistening in a new coat of paint. The conveyor bore it on into the next section, the drying room, and here again a few minutes sufficed to make its fresh paint dry and glossy.

At last we got the parts for the first experimental tractor. And what parts they were! Handicraft stuff. Trash. Talk about assembling! You had to begin by tinkering up the parts to make them fit.

The parts wouldn't fit. Their dimensions were all wrong. We had to adjust them, hack them, file them into shape. The assembly shop became converted into a mechanical repair shop. And all the same we managed to unravel all the knots of the first experimental tractor and get it assembled somehow. Then we took it to pieces again. And then again assembled it.

An outsider might have thought that the Plant was already working at full pressure. In the forge, in the foundry, in the repair shop and in our machine assembly shop, the clang of metal was to be heard the whole day long. The men were feverishly busy. The machines clattered and hummed. And all to no purpose, it would seem, for the Plant was not yet opened and a tractor every five minutes was still a thing of the future. However, the day when the Plant would be opened was drawing near—the great and memorable day of June 17, 1930.

This day saw the opening of the first plant of the American type in the U.S.S.R., a mighty tractor plant with a mass conveyor system of production designed to put out 144 machines a day—a tractor every five minutes.

However, we knew beforehand that on this day only one single tractor was to be assembled on the conveyor.

The day came. Thousands of people had flocked to see. Excursions from Stalingrad, from the surrounding district, from neighbouring factories, from various places on the lower Volga and even from the Northern Caucasus. There was stir and bustle and sounds of music.

The conveyor was started. The thin ribbon of steel moved slowly onward as we assembled the tractor. In our ears was the sound of trumpets and singing from the waiting crowd as the band struck up an air and the people took up the tune and sang it in chorus. Then another sound broke in on our ears as we worked—it was the resonant bass voice of the manager Ivanov, tense with anger.

“What d’you think you’re doing? Planing skittles or shoeing horses at the village blacksmith’s? Don’t file those parts to make them fit. There’s a machine to do that with, you fool. If a part doesn’t fit to a hair’s breadth, chuck it out and have it made again, but don’t go spoiling the machine and bringing disgrace on the Plant.”

He tore the file from our hands and strode off to give hell to the ill-starred foremen and workers who had turned out the “misfit” on their machines. We heard his voice, drowning the notes of the band, booming out in the depths of the shop:

“Do you understand in what plant you’re working or don’t you? This isn’t a handicraftman’s workshop. . . .”

It was nearly two o’clock. Now it only remained to put the wheels on the tractor and it would be all complete. The foreman, the head of the shop, engineers, heads of departments—all were lending a hand, working as ordinary assemblers. Thousands of eyes were watching us. . . .

A hitch. Where was the manager? One wheel wouldn’t fit on to the axle. Did anyone see the manager? No, he was nowhere to be seen; the manager wasn’t looking.

“Quick, take the file. . . .”

We began to file the axle on the sly, hoping Ivanov wouldn’t come and catch us. Our trick, it seemed, did not escape the notice of our guests who had come to see the opening of the Plant. A thick impenetrable wall of curious onlookers hedged us off from the

managerial rage. The filing got finished at last and we forcibly jerked the troublesome wheel into position. The belt of the conveyor began to move. Smoothly, like a ship taking to the water, our first tractor continued its triumphal progress down the conveyor. Its red wheels sparkled.

On the tractor sat an old, old man who had come to see the opening of the Plant. On his knees he held a little boy, a Pioneer with a pair of scissors in his hand. Slowly the tractor approached the inclined plane at the end of the conveyor. Its front wheels dipped to meet the earth. Ivanov and the representative of the Party committee were holding a red ribbon stretched across its path. As the tractor's wheels touched the ground its radiator just touched the outstretched ribbon. Then the boy cut the ribbon with his scissors.

We started the engine. The machine came to life, quivered, snorted—life and strength were boiling up within her. Foreman Kiselev took the wheel, the crowd parted and the first tractor went buzzing out of the shop like a hornet—a living powerful machine, made by us with our own hands.

After the meeting which was held, after the enthusiastic speeches punctuated with loud applause and the singing of *The International*, I had a talk with one of the visitors. He was a venerable old man, a Circassian and a member of a collective farm who had come with a delegation from the Northern Caucasus.

He was explaining something to his wife, pointing to the conveyor and pulling her by the sleeve while she clung to him as though in terror. Evidently he was trying to get her to touch the conveyor, to feel it for a moment if only with her finger.

"What's up, grandpa?" I asked him. "What sort of agitation are you carrying on here?"

"It's her I'm agitating," answered the old man in his petulant voice. "My old woman was fairly scolding the life out of me at home. What did I want to join the collective farm for, she wanted to know. Well, they decided to send me to see the opening of the Plant, so I went to the village Soviet and asked them would they be kind enough to let me take my old woman along with me. I wanted her to

see because she is plaguing the life out of me these days. Let her see with her own eyes, I said to them, and then maybe she'll change. . . ."

"It's a good thing, of course, to come and see," said some sceptic, breaking into our conversation. "But on the other hand you've got a monster factory like this"—he nodded towards the conveyor—"and only one tractor. A whole crowd of people"—he waved his hand towards the mingled throng of workers and visitors—"and only one tractor."

From this moment began long and arduous days of toil during which we were learning to work the Plant. It was planned to put out a tractor every five minutes and we in a month's time scarcely managed to get two tractors off the conveyor. And in the ensuing month the ten thousand men employed in this up-to-date and highly perfected plant could only turn out five tractors.

We were floundering helplessly in a sea of fuss and muddle. The conveyor stood motionless. We would set it going from time to time, just for amusement. Unkind people began to crack jokes about it. We had at our disposal a magnificent series of shops, splendid machines and plentiful supplies of raw materials—steel, pig-iron, everything. Our staff included no small number of eminent specialists and engineers, of foremen and workers, who had made a special study of tractor production in America. We were paying in gold for the services of many Americans in order that their knowledge and experience might be transmitted to us. And still there were no tractors.

The reason why we got no tractors was because the secret of mass conveyor production lies not only in having the right equipment but also in having correct organization of production. It still remained to organize things in such a way that all these seven hundred and fifteen rivulets of production might flow into the conveyor smoothly, punctually, uninterruptedly and according to plan. But the rivulets were rebellious and would not obey our orders. The channels of production would become clogged. At one point or another, at some lathe or bench, there would be a hold-up on account

of tools or spoiled output or something, and at once paralysis would grip the whole process from beginning to end. Dozens of machines would be standing idle altogether, while hundreds of others were affected by the hitch. What was there for us to do with the conveyor standing idle?

We lazed around, read the newspapers, told stories. We were tired of doing nothing. Then, all at once the word would go round the shop: "He's coming!" These words had an electrifying effect on us assemblers. We immediately went to our places. We pretended to be busy although in fact we had absolutely nothing to do. "He's coming" meant that we were in for a visit from our manager, Vassily Ivanov. Should the manager come and find you idling—well, it made you wish the ground would open and swallow you up.

"Well . . . ?" The manager had come. "What are you doing today?"

"Assembling the gear-box."

We had assembled it long ago as a matter of fact and there was nothing else we could assemble, since all the necessary parts were lacking.

"Go on, then" said the manager, frowning. "Assemble it. You stand around idling and chatting instead of working. Assistant foreman! . . . Where's the assistant foreman? Talalayev!" He called me. "Why are the boys here lolling around doing nothing? See to it there's no idling. Let them assemble the parts and take them to pieces the whole seven hours, even if it means doing the same thing fifty times over."

"All right, Comrade Ivanov."

"And do you file any of the parts now?"

"No. . . . That is yes, but not often."

"Well, don't. If I see you at it, there'll be trouble."

We went through the shops finding out where the parts we wanted had got held up and urging them on at the weak spots. We fought for every nut and screw. And then, little by little, very slowly, with many mistakes and much strain, we succeeded in getting the Plant out of the rut. A tractor every five minutes? No thought of that

now! If only we could do better than five, than ten tractors a month. The country was demanding machines of us. At first we gave it too few—two or three hundred a month only. This was better than the old state of stagnation but for all that it was a miserable, disgracefully low figure.

Our foreman was Novikov, an American of Russian origin. I learned a great deal from him.

“Dirt,” he said, “dirt and lack of precision—that’s what’s going to keep us down at our present level. How do they do it at Ford’s? . . .”

And he went on to tell me how the production process is arranged at the Ford Tractor Plant. In the first place all the parts are turned out with extreme precision. Then the workers who are assembling the parts wipe them carefully with a rag soaked in kerosene, dry them with an air-pump and only then do they begin to assemble.

“And the parts all fit to a hair’s breadth. No need to use a file when you’re assembling—no one even thinks of using one. There the parts are made with such precision that you can take any tractor to pieces and use the parts to assemble another tractor and they’ll fit perfectly, without any adjusting or filing. You can transpose them that way because everything is standardized.”

Novikov conducted technical classes among us, first of all for the foreman and brigadiers, then for the workers too.

I was appointed foreman of the big conveyor and had to superintend the work of four brigades. What a time we had! We would often spend the whole shift running from shop to shop with a list of missing parts. We worked in two shifts. The first shift hardly did more than go round the shops and hunt up the missing parts; it was only the second shift that was able to get down to the actual assembling.

The workers of the Red Putilov Plant in Leningrad sent us a letter “It’s a shame,” they wrote to the *Pravda*, and they were right. We were ready to spend twenty hours at a stretch in the shop if only we could carry out the tasks set us by the government. They wrote

about us abroad with malicious glee. The Bolsheviks, they said, have built a factory all right, but they can't run it properly.

We left the shop only in order to get a wink of sleep now and then. We were straining every nerve. The Plant was living as if in a fever. One day we would get seventy machines off the conveyor and the next day only thirty. At such times we could almost have cried aloud at our own impotence. Now the foundry would turn out too much spoiled output. Now our much needed parts would come to grief in the forge or during heat treatment. What was the matter? Hadn't we learned our lesson, or were we still waiting for our "most gracious Lord" to "vouchsafe to grant us the spirit of thy blessed . . ." No, of course we had got beyond that! And we really were learning. Little by little, step by step, we were getting a grip of our Plant.

And by the autumn of 1931 we had really mastered the working of the Plant; we had learned to control all those seven hundred and fifteen rivulets of production that contributed their quota to the main conveyor. The tractors were coming off the conveyor ever more smoothly, ever more certainly. The feverish condition had been surmounted. The conveyor was moving, moving all the time, and day by day more and ever more machines were coming off it. Maybe it was only an increase of one or two machines at a time, but still the number kept on growing continually.

From this on we all of us began to have more time on our hands. I was able to think of science. I was already a foreman, it is true, but what sort of training had I had? Only that of experience. As for the rest, I'd had no schooling at all, except for "hearkening to the doctrine" in a pre-revolutionary school. So I went to study at the Tractor Institute in order to qualify as a mechanic and technician. I began studying mathematics, the science of machine building, the technology of metals, the resistance of materials, qualitative analysis, chemistry, etc.

Of course I wasn't the only one to study. We were all studying by now. And this had its effect upon the work. Hadn't we almost worked up to capacity output? We were already putting out a tractor every five minutes, just as my friend prophesied. The red wheels

touch the floor, we start the engine, the machine chugs and sputters, bubbling with newly created power. Then there is a grating sound from the brand-new starting lever and the new machine buzzes away through the gates over which hangs the sign: "For finished tractors only." A tractor every five minutes! Later on, as is well known, we exceeded the planned capacity of the Plant. And the best of it was that we came to have more and more spare time. There was time now not only to study but even to go fishing. That's one of my favourite pastimes—to pack a bit of food in my bag, dig up some worms overnight and, having got ready the bait, to set off with a friend for a day's fishing on the Volga. The river has a fine sandy bank. You take your seat and spend the day in peace and quiet. I'm a great lover of angling.

We now work smoothly, confidently. If there's enough steel, enough raw materials, then the whole process goes on without a hitch and the conveyor never stops.

One day I had a surprise visit.

"Whity," someone shouted, "there he goes!"

A hand caught me by the sleeve. "Whity," it turned out, was myself. (I am fair-haired.)

"D'you recognise me? Or have you forgotten?"

Of course I remembered him. It was the old Circassian, the collective farmer from the Northern Caucasus who had brought his wife to see the first tractor. He seized me by the hand.

"How are you, grandpa? Yes, I recognize you all right."

"Well and how about the Plant?" he asked. "Seems as if things were looking up."

I was about to answer, but I had to dart away for a moment to attend to one of our tractors which was just coming off the conveyor. I turned and nodded to the old man, giving him a grin so that he would understand. He was accompanied by a group of fellow-countrymen, men and women, and he kept shouting some question after me, but I couldn't catch what it was.

The tractor was driven away through the gates and I came back to listen to the old man's question.

“I say you have many girls working here,” he said. “Can they do the work? Can they really tackle it as well as the men?”

I told him the girls in our Plant worked fine. He turned to the young Circassian women who were with him and admiringly pointed out to them how our girls were working at the machines and on the conveyor. He was evidently telling them that here were girls working at the machines like men and doing it just as well as they.

“We’ve come on an excursion,” he said, pointing to his fellow travellers. “In the villages and mountain hamlets down our way they’re still saying it’s impossible to make tractors this way. They’re still saying that, if it is done, it’s made out of American parts and not out of ours.”

And once again he turned to speak with his companions in Circassian.

One after the other, the machines were taken off the conveyor, started up and driven away. The visitors stood watching there for an hour and a half and during that time we turned out seventeen machines.

“Here a minute!” the old man called me. I went over to him. “How many minutes does it work out at for each tractor?”

“A tractor every five minutes,” I answered.

The old man looked triumphantly at his fellow-countrymen and raising his thumb high in the air, translated into Circassian for their benefit:

“A tractor every five minutes!”



From Errand Girl To Brigadier

A. M. SIROTINA, Brigadier in the Core- Making Shop

One day the rumour went round the villages that down on the Caspian, in the far-off fishing town of Astrakhan, people were making their fortunes. They said that a big shoal of fat fish had come in from the sea and you could go and catch them with your bare hands. The rumour was set going by some smooth-tongued strangers: they gathered the people around them in the evening after work and tried to get them to go off to the fishing.

To our village of Shcherbakovka there came a little skinny fellow dressed in a leather jacket. He waved some white sheets of paper and shouted:

“Now then, who wants to get rich? Let’s go to the Caspian! Sign on, folks!”

There were many who signed on. The smooth-tongued fellow loaded them on to a barge and ferried them over to Astrakhan. As for those who couldn’t go—either for family reasons, or just because they were too young—he found work for them too. He organized a co-operative in the village for wattleing *mereds*.

A *mered* is a big wicker basket shaped like a bottle. It has a double layer of wattle; the inner layer only reaches half-way, gradually narrowing down and leaving a small opening at the end.

The *mered* is lowered into the river where the current runs swiftly. The fish goes into the opening in the basket and can't get out again.

I joined the co-operative too. I had to get up to go to work before dawn and it was after sunset when I went home again. I was paid forty kopeks a day. The more *mereds* I wattled, the less they paid me. Hundreds, thousands of red wicker baskets were loaded on to barges and taken off to Astrakhan. From time to time the smooth-tongued fellow would show up in Shcherbakovka, collect our baskets and promise us a rise in pay.

They were cheating us. In the autumn our fellows came back from Astrakhan: they were sick, worn out and they hadn't made their fortunes. And as for us who stayed behind in the village, we didn't earn anything either. Later on we got the news that the Soviets had discovered a gang of speculators and exploiters at Astrakhan. The little silver-tongue who'd swindled us didn't show up any more. They must have put him in jail.

Our co-operative was handed over to the State Fishing Trust. Things began to look up after that. I was soon earning as much as three rubles a day.

About that time our Gennady Sirotin came back from serving in the Red Army. He was a quiet, peaceful fellow—in his outward appearance at least. He took a look round him, took stock of the life we were leading and for the first time in our village he let fall the word—Komsomol. Gennady organized a Komsomol nucleus and I joined—the first Komsomolka in the village, I was. And from this on my father, a sullen religious old man, took a deadly dislike to me. All the rich farmers in the village were set against me at once. I would get hooted as I went down the village street and when I stood



Either Quit the Komsomol or Get Out!

drawing water at the well they would hurl insults at me. And my father told me outright:

“Either quit the Komsomol, or get out.”

I went to Sirotin to complain. He heard me out and then he said quite simply:

“Listen, Sasha, let’s get married.”

Well, I liked him. He was a serious-minded, intelligent fellow. He spoke in glowing terms of the life that was before us. And I believed what he said.

We got married. I had nothing—came to him with nothing but the clothes I had on me. But living with him wasn’t any too easy. The whole trouble was his mother. For years she had dreamed of marrying her son to a rich girl and now this son of hers had brought home a girl who hadn’t even got any dowry. His mother would often reproach me for my poverty. At first I managed to stick it somehow, but after a while I could stand it no longer and I made a counter-proposal to my husband:

“Listen, Genka, if you want to live with me, let’s get out of Shcherbakovka! I can’t live with your mother!”

He didn’t argue the point. We collected our belongings and went off to the town of Buinask. It was the first time in my life that I’d been in a town, and although it was only a small one, I was quite lost there at first. They sent me to work in the State Bank.

“You can run errands,” they told me in the Komsomol nucleus, “and then when you’ve got accustomed to the work, we’ll promote you to a higher post.”

The typist and secretary of the State Bank acquainted me with the work. First of all, she took me by the hand and led me to where a beautiful red-painted box was hanging on the wall and explained to me:

“This is called the telephone. When someone rings up, you take down this trumpet, put it to your ear and ask: ‘Who do you want?’ And then whatever name it is, you have to call to the telephone.”

I was terrified of that box. I sat there and thought: How can a simple wooden box like that talk? And then all of a sudden the

telephone gave a piercing ring. I started up in dismay and ran headlong out of the bank. After that my husband and the workers at the bank spent a long time explaining the working of the telephone to me. All the same I didn't get used to it all at once.

I became accustomed to town life after a little. The Komsomol sent me to study at the classes for co-operative workers and I began to read the newspapers. And then another rumour began to go round—that at Stalingrad on the Volga the Soviet government was building a huge factory and the young people were flocking there from all ends of Russia. It was a tractor plant. I had never seen a tractor and besides I had no idea what a factory was like. But somehow I was strongly drawn towards this factory. And as it happened, this fitted in with our plans for the future, for even when we had lived at Shcherbakovka my husband told me about the big towns and the factories where people live a real modern life, where the youth is building up a new life.

We came to Stalingrad in the spring of 1931. The whole town was talking about the Tractor Plant. Everywhere—in the newspapers, the trams, the railway cars—the conversation all turned on the same thing—to get the Plant started and give tractors to our collective farms. We went to the Stalingrad committee of the Komsomol. At first they sent us to work in a co-operative store, but somehow I had no liking for work of that sort. I was longing to get to the Plant. I remember how I would go to the factory gates after work was over and stand for many hours gazing in. I wanted to enter but they wouldn't let me. At last, however, our wish was granted. We were called before the Stalingrad committee of the Komsomol, and Gertzovich, the secretary told us:

“We are sending you to help the Tractor Plant. Whatever work you are given, you must work as Lenin taught us to do. Remember, you are going to the best plant in the world and the honour of the Komsomols will depend upon you. You have to master in a few months the technique which the capitalists took scores of years to master.”

They sent me to work in the foundry.

It was three o'clock in the afternoon. There was a band playing somewhere. At first I thought it must be the custom to play music at the changing of the shifts—to play in one shift and play out the other, so to speak. But I was wrong. The band was playing here for the first time and they had arranged some kind of solemn meeting. Along with the other girls I made my way to the Red Corner, where there was a dense crowd of people. In the middle of the room stood a great blackboard with a drawing of a camel on it, and there was a young Komsomol standing there, waving his arms like a windmill and shouting:

“Shame on you, core-makers! That’s what you’ve earned by your bad work—the order of the camel! There he is,” and the fellow pointed to the awful brute with his finger. “Take him, girls, he’s yours!”

The band struck up a march.

There was a clamour of voices all round me; the girls were protesting and some of them were even in tears. And then, I remember, a big, strong, hearty-looking man with a bulging forehead got up on a bench and recited some sarcastic, insulting verses. They told me afterwards that it was Sasha Bezymensky. *

That was how I started work—in the very worst section of the whole Plant. At that time “camel” was reckoned the most insulting word we had.

My brigadier was Fadina who was afterwards awarded the Order of Lenin. She said to me:

“Come along now, Sirotina. I’m going to show you our department.”

There was an awful roaring and hammering of machines and there were motor-cars whizzing to and fro over the shop. I dodged to one side in fright and took refuge behind a stand. Fadina hauled me out, shouting into my ear:

“What are you running away from?”

* Famous Soviet poet.—*Ed.*

"It's enough to make anyone run," I shouted back, "having all these motor-cars chasing after you."

Fadina led me to where a box was standing, full of moist golden sand. She took a small mould, packed it full of sand and deftly turned it out on to the stone floor. I saw lying at my feet a smooth well-pressed shape of firm sand.

"Well, that's a core," said Fadina.

And that same evening I had to set to work making cores. I didn't have much luck. It seemed as if I poured in the sand all right and packed it all right, but when I emptied out the mould, the core just fell to pieces. I was ready to cry with vexation.

"Never mind, Sirotina," said Fadina, "don't take it to heart so. You'll soon get used to it and learn the job."

I had to make the simplest kind of core. The assignment was a hundred and twenty cores a shift and try as I might I only managed to turn out seventy-five. I came home and said to my husband:

"I can't do anything. It's a shame! They've sent us to work in a place where there's a hitch and I can't even do the job. How can I stir up the others when I can't make the assignment myself? How can I, a Komsomolka, lead the non-Party workers when I myself can't work?"

Next morning when I went to work I saw a huge camel hanging in effigy on the factory gates and all around hung the portraits of bad workers who had smashed machines, turned out scrap or not shown up at work. The others stood and watched the display, shouting after us:

"Hi, there go the camel girls! What's the latest in your shop? Are you thinking of keeping that beast with you for long?"

I soon found out that you have to have very nimble hands in our work. You have to "break your hand in," so to speak—learn to turn out the core quickly and correctly. If your handshakes ever so little, the core will be spoiled and fall to pieces. After a bit I got the knack. I would pack the sand, quickly place the mould on the stone floor and raise it again with a swift motion, and the core would come out first rate. In a few days' time I had begun to overfulfil the

assignment. The finished cores I put away on the stand, rows and rows of them, all of them firm, strong and of good quality. I had quite fallen in love with the job. Fadina came along and smiled when she saw me.

“Now you can make cores as easy as shelling peas,” she said.

I soon began to find my feet in the brigade and overcame my shyness. We used to hold a meeting half an hour before work began and think of ways of learning how to make good cores as quickly as we could so as to get our section out of its position of disgrace. We started checking up each other’s work to see if the quality was all right and every day each core-maker was assigned a definite plan. I remember how at that time we had terrible scandals in our section because of spoiled output. By the end of the day there was always a big heap of scrapped cores lying in one corner or another, and no one knew who was responsible. There were heated arguments about it. Each laid the blame on the other and the real culprit could not be found. We got a lot of help from the American foreman, a little man, extraordinarily stout, who was always on the run, chasing over the whole section and finding spoiled output the whole time. He was amazingly good at guessing who it was who had done the bad work. He would pounce down on the bad core, lift it up and hold it close to his eyes, feel it all over and then, after one glance round him, stride firmly over to one of the core-makers.

“Listen, this is your core! You can’t fool me. I know it’s only you who makes a core that way.”

The girl would blush, lower her eyes and have to confess that she was the one. The American would lay the bad core down on the stone floor and patiently explain how the damage had been done and how to work so as to avoid such mistakes.

Our brigade, under Fadina’s leadership, took first place in the section.

We fulfilled our assignment and produced less spoiled output than any of the others. Urova’s brigade came next after ours. We had a permanent staff of girls working in these two brigades and a much higher standard of discipline. There was a friendly harmonious

atmosphere at work. Then one day—I think it was in September and though it was already early autumn the weather outside was lovely and sunny—one day at three o'clock in the afternoon the agitation brigade suddenly came marching into our shop and took away the camel. You can't imagine what a relief it was—we just danced for joy at the thought that at last we had learned to make cores. We looked with satisfaction at the long neatly packed rows of finished cores and felt that this was our work, our achievement.

I went to study at the Workers' University while at the Tractor Plant. I learned all about sand and oil. The instructor revealed the whole inner essence of the core to me, and I was surprised to find that it isn't so simple as you might think. There's a whole science attached to it. Later on, when I was transferred to work on more complex and intricate cores, I had to try and apply the knowledge which I had acquired at the Workers' University. I often used to go to the moulding department and watch the work there, to see how my cores help the moulder to make a good cast. Sometimes I saw that my core would suddenly crumble to bits and the part that was being made would have to go to the scrap heap. Then I would go to the American foreman and ask him to explain why the core had crumbled and what I must do to prevent it happening again.

Fadina was promoted to a higher post and I became brigadier. Up till then I had been learning how to make cores properly but now my task was to organize people, to lead them, to make myself responsible for the production of all the cores. This is ever so much harder than just standing all day and turning out the same core over and over again. I felt this on the very first day of my new job, when the foreman and the brigadiers from the moulding department came running in and wanted to know when they would get their cores.

"Sirotina!" they cried "You'll be the death of us! You haven't sent us this and that and your cores for the cylinder-heads have all crumbled to bits!"

My head swam round. I was so agitated I thought I would go crazy. I felt as if the whole shop was weighing on my shoulders, as if the whole shop was looking to me for good strong cores.

I went to the Komsomol nucleus for help and they responded wholeheartedly, especially the secretary, Comrade Chelyshev. They aided me and taught me how to make myself mistress in my brigade. We went over every worker carefully and checked up once again just what she was good for, just how much she could do; and we saw that each girl answered for her own cores. First thing in the morning I used to go round and set them all definite tasks, one by one.

“You, Kozina, have got to make so many today. You must do it, even if you burst. If you’re in difficulty, call me and I’ll help you out.”

So I set them each a definite task, constantly checked up how these tasks were being carried out, paid careful attention to every worker, and things began to go better. We were giving good cores to the moulders.

We had six brigades at that time and each of them wanted to take first place. And in this competition it often happened that the deciding factor was not so much the work that was done as the way it was organized. For example, if there were no stands to lay the cores on when they were finished, the girls had to stand idle whether they liked it or not. Or again, if there was no sand ready, it meant more idle time. I used to come to work an hour or so before the shift started in and see that everything was in its place. It hardly ever happened that we were held up for lack of stands in my brigade. I did all I could to make sure that my girls had everything they wanted when the shift began.

At that time there were still many things not going quite smoothly in our shop. But I succeeded in getting many of them put right. I didn’t confine myself to my duties as brigadier but kept my eyes open to what was going on all around me. I didn’t put up with any of the mismanagement but went after the foreman, the head of the shop, the Party nucleus, and let them have no peace till things were put right.

I remember how once we got out a wall newspaper and published a hot article pitching into the head of the department, Karandashev. We disclosed a whole pile of facts and accused him of

bad leadership. My girls were all up in arms about him and so was I, but next minute my heart was in my boots, for Karandashev was furious and threatened to get the author fired. They called a special meeting of the bureau of the Party nucleus. Karandashev spoke first. He declared that he was being slandered and his authority undermined. As I sat and listened, I thought that my last hour had come. "I'm sunk," I thought. "Now I've put my foot in it once and for all!" However, the Party comrades were prudent and considerate and did not adopt a hasty decision. They appointed a commission to look into the matter. The commission confirmed all the facts we had stated and Karandashev got hell for it.

Later on, when the Plant was running smoothly, I went to the secretary of the Party nucleus and told him I wanted to join the Party. I was very excited about it and could hardly get the words out. He asked a lot of questions about my past life and proposed that I prepare myself for membership. So a Communist who had good political knowledge was put in charge of me and he began to come and visit me in the shop very frequently, noted how I was working and helped me to settle all kinds of difficulties. Then after the whistle blew, we would sit down to a lesson in political knowledge and he would explain things to me. I asked him all kinds of questions. They seem quite childish to me now, but at the time it was natural enough, for I was only a pupil then. At that time I didn't even understand such words as "class". I thought a class meant a class in school.

My teacher explained all these things very well by means of examples.

As I was being trained to be a Communist, I began to think more seriously about my work, to take a more responsible attitude towards it. I felt that the title of Bolshevik would place a great responsibility on my shoulders.

I was accepted as a member of the Party. It was on the evening of August 13. That evening will always remain in my memory. It seemed to me as if I were the happiest person in the world. They entrusted me with the job of collecting membership dues—only a small job but oh, how proud I was of it! I was proud that I was one of

the three million members of our Party and that though my task was only a small one, I was yet helping to carry out a great work.

I began to be a better judge of people and to watch them more closely. Take a look at our department while the girls are at work—hundreds of different-coloured headbands—red, blue and white, looking like a regular rose garden—noise, bustle, laughter and talk.

But that's only on the surface. Not all these girls are shock brigaders and not all of them put their heart into their work. Some of them have slipped in on the sly just in order to better themselves. There are some kulak cuckoos in the nest who want to get registered as workers so that later on they can get some soft job or worm their way into the Workers' College or the university. But we were quick at exposing ones of that sort. There was a girl named Podletok working with us as a core-maker. At first she pretended to be all enthused about the work and was even made trade union organizer. But after a bit, when she thought she had firmly established herself, she began to idle. She would go roaming around from one bench to the other, distracting the girls from their work and generally taking it easy. But we had been keeping our eye on her and we got her turned out of the factory without more ado, and she wasn't any too sorry to go either. It turned out that her father, who lived at Orlovka about six kilometres away from the Plant, was a rich farmer owning plenty of cattle. Folks like Podletok don't cut any ice in our factories.

But it isn't always that the girls are to blame themselves when their work is bad. We have some girls who are willing to work but just can't do the job. Such ones have to be given a helping hand. So I help them out. Take Zaikina and Feodorova, for example—two girls who did bad work as core-makers. They were dreamy and listless and didn't seem interested in things. I thought and thought what the trouble could be, and then I decided to look into their life beyond the factory gates. The trade union organizer went to visit the place where they lived and found these two girls were living in one room where five other families were housed besides. The beds were crammed close together and at night the people would all lie down to sleep in a row.

They couldn't get a good sleep or get rested properly—they were tired when they got up in the morning and came to work all listless and heavy-eyed. We pushed to get rooms for Zaikina and Feodorova and in a couple of weeks those girls had changed so that you wouldn't recognize them.

One year's work at the Plant is worth twenty years of life at Shcherbakovka. It was only a year ago they were teaching me the job for the first time and now I'm beginning to teach others myself.

A new worker comes into the shop. I can pick him out at once by his halting footsteps and his frightened look. It's the first time in his whole life that he has crossed the threshold of a factory. He must be given a helping hand.

But it happens too often with us that they just put the young worker at one of the machines, explain a thing or two about his job and that's the end of it. A week, a month passes—the fellow is left standing there, stewing in his own juice and afraid to ask anyone for advice, and the older ones never guess how lonely he feels. My way with new workers is just the opposite. I have a good talk with them, give them some encouragement and that helps them to find their feet. I often go around asking the newcomers if there's anything they don't understand, if anything is hindering their work and so try to make things easy for them so that they can quickly master the technique of the job.

There's my pupil Kozina now, working in our core-makers' brigade. She's our prize core-maker. But I remember when she first came into the shop, she was so scared she hardly dared to touch the moulds. She had a terrible hard time learning. All the cores she made fell to pieces. I used to spend the lunch interval coaching her till she learned the job at last.

My husband and I are living in a new stone house. Till recently my husband was working with the Party committee, and he is now secretary of the Party committee of the third department in the machine assembly shop.

Not long ago at a general meeting we had to elect someone chairman of the departmental committee of the Automobile and

Tractor Industry Trade Union. Comrade Bychkov, chairman of the shop committee, proposed me. All my brigade protested.

“We won’t let our brigadier go. We’re used to working with her. Choose someone else as chairman.”

However, Bychkov persuaded the girls and they elected me. So now I’ve started work as chairman of this committee. It means increased responsibility. There are five hundred and forty women working with us. Most of them are young workers, peasant girls. They have to be turned into good steadfast proletarians.

My Life

P. I. KONOVALOV, Asst.-Chief of the Trimming Department of the Second Foundry



I was born in the village of Chernava in the Pugachovsk region. My folks were poor. During working hours when no one was left at home, they locked me up in the hut and I was left alone with Praskovya the cat, Sharik the dog and Ryzhonko the calf. I slept on the floor with Sharik and Praskovya. The calf was tied to the stove.

These were my first comrades. I played with them and fought with them over their food. I tried to teach the calf to bark and mew, and when it couldn't understand, I beat it over the head with an old bast shoe.

Here is one of the first pictures of my childhood which I can remember. Myself, quite little, running around the hut without any pants; old granny Euphemia winding hemp, my mother spinning thread and father tinkering with an old horse-collar and crooning a song to himself.

When winter came, I wanted to run about out of doors but I had no clothes to wear. They pulled a sledge into the hut and I sat in it, cracked my whip and shouted "Yup!" Father, mother and granny all laughed and asked me: "Going to be a coachman are you, sonny?" "Yes," I answered gleefully, "I'm going to be a coachman and drink vodka."

¹.... and, after crossing herself before the ikon, “What are you doing, sonny, swanking about’s on?” I was sore when she said that and was alone with mother, I asked her to sew: there was nothing to sew them of. old hut. When mother lit the stove, weor so the smoke wouldn’t get into our eyes.t stood wide open; the smoke would swirlws and find its way out through the slits flakes of snow would come falling through wind whistled shrilly and tore away the From the village street came snatches of the sound of bad language.ailed and there was famine in the village.f to Penza, to Chapayevsk, to Samara soes and their children. Nine out of tens were left empty, their windows boardedained ate onions, pigweed and bread madeth the bark of trees.

.... had already lost my father. In 1914 he from the army and hurrying all he could. autumn rains, the roads were bad and thee had to cross were flooded with water.

.... from then on he was a sick man andier was left with six children on her hands.e in for a hard time of it, so she gathered belongings and went off to Lebyazhe to buyd had some sort of a crop, enough for thethemselves anyway. We waited for her acided she must have frozen to death on Matvey took a fur-coat, a suit and someed them up in a sack and likewise set off ... We stayed and waited for his return.

....it the whole day without a bite of any-ters and my little brother began cryingnny called in one of the neighbours to horse. It was an old horse and the meate it up ravenously. G

... got up in the middle of the night ando the yard, but the door wouldn’t open. It was blocked up from outside. She guessed at once that someone must be trying to get our cow Ryzhonka, managed to open the door with a desperate effort and rushed over to the cowshed. But the cowshed was empty and Ryzhonka gone.

¹ Missing text —STC-SPC—DD(CP).

I was asleep. Granny seized me by the hair, pulled hard and cried out in piercing tones:

“Pashka! The cow, the cow....”

I jumped off the stove as though I’d gone crazy and we ran out of doors, granny shouting out: “Thieves and rogues, starving orphan children!” She ran for help to our neighbour Ivan Goldovin, nicknamed Chichek, and beat furiously on his window. But he refused to stir from his hut and answered us: “How the hell can I hunt cows in the middle of the night?”

Next day mother unexpectedly returned from Lebyazhe. She brought with her a whole load of foodstuffs—potatoes, pumpkins, beetroot, millet, etc. “Now, children,” she said, “pray to God we’ll get through the winter somehow. But where’s Ryzhonka?” she asked, looking round her. “Where’s Matvey? And where’s our grey horse?”

We answered with tears in our eyes that Matvey had gone off to get bread and not returned, that the grey horse was already half eaten and that Ryzhonka had been stolen by thieves. Mother fainted when she heard the news. When she came to herself, she started wailing and moaning as if her heart would break. For a whole week she remained day and night in this hysterical condition and then she got sick and went to bed. After that granny took to her bed too.

Within a month mother had recovered, but granny’s sickness continued and she died soon after. I don’t know what was the matter with her, for at that time we had no doctors in the village, but I believe it was something like typhus. We wrapped up her body in sacking, dragged it out of the village on a sleigh and laid it out in the field where many human corpses were already lying. After granny was gone, my two-year old sister Nyura also died. We carried her out in the same way.

We had only one measure of grain left. There was no kerosene, no matches, no water even, for all the wells were frozen. We began to hunt out edible grass in other people’s stables, collected bones, mixed these with grain, ground it all down on Jacob Glagolev’s mill and ate it. Mother managed to get one box of matches by exchanging

her last gown for them. We used splinters of wood to light the hut. My sister Eugenia made them by splitting up planks of pine wood. As for water, we made it out of snow. We brought it into the hut, put it in a barrel and kept it till it melted. So we lived until the “Christmas holidays” came round.

On the second day of the “Christmas holidays” mother went to her sister Pelagea, got from her the guts of a calf and roasted them. We enjoyed that and gobbled up the food, after which we could not resist a drink of cold unboiled water. We slept all right that night but next morning, waking up late, I saw that my brother Prokhor was lying on the stove with his head hanging over the edge; his eyes were rolling and he did not utter a word. I was frightened and told mother. Mother came to him and asked: “Prosha! Proshenka! What’s the matter?” But he didn’t utter a word, his tongue clove to the roof of his mouth. He felt, he saw how sorry we were for him and his eyes were full of tears. Within three hours’ time he was dead.

We had to bury him but we ourselves could hardly drag our legs along, besides which the Christmas frosts had set in and going out of doors was out of the question. We had already got rid of all our clothes. We and mother decided to take the body of Prokhor off the stove and drag it into the dark unlit part of the hut, so as to keep it from decomposing. But we had no strength left to do this. Exhausted as we were he proved too heavy for us. We did not succeed in moving his body.

So he remained in his place. The heat of the stove caused his stomach to swell out. For three nights I, mother and Eugenia slept on the stove alongside my brother’s body.

At the end of that time Matvey Vymenkin came along riding on a horse. He rapped on our window with his stick and asked: “Have you got anyone to take out or not?” We were mighty glad he had come. We helped him to drag out Prokhor’s body. Having laid out

the corpse, he came back once again and told mother: “Mind you don’t die now! Soon they’ll be giving out an ara to everyone.” *

Mother thanked Matvey and shut the door after him. We waited month after month for the promised rations to arrive but they never came. We had eaten up everything down to the last crumb. We sold the sleigh to Ephraim Skomovokhov for five pounds of flour and we sold the stables to Vassily Grebenkin—for three pounds of millet.

It began to get warm outside. On one day of bright sunshine mother, Eugenia and I went out of doors to get warmed up a bit. Our faces were unrecognizable by now, the eyes deep sunken, looking half their usual size in our swollen faces, arms and legs like immovable blocks of wood.

Around our hut lay the bones and skeletons of animals. And the famine still continued. It grew worse. For whole days on end we had nothing to eat and only water to drink.

Before long my sister Eugenia died, leaving us two boys alone with mother. We managed to hang on till the “ration” arrived at last—it was maize but there was not enough of it for us.

In April, on the twentieth of the month, we went out to the steppe to catch marmots. We carried buckets in our hands, almost tripping up as we went from weakness, and having found the burrow of a hamster, we spent the entire day pouring water into it. At last the hamster came out, but we did not have strength enough to catch him. He darted away and took refuge in another burrow. Mother shouted to me: “Look, sonny, there he is! You can see his tail; catch hold and pull him out!”

I gripped hold of the tail with both hands and pulled for all I was worth. The tail remained in my hands but as for the hamster—he stayed in his burrow. What was to be done? We began to dig up the burrow with our bare hands; we dug and dug until at last we secured our prize.

* *Ara, formed from the initial letters of the American Relief Association. The word was used in Russia at this time to denote a ration of food handed out during the famine.*

It was a big fat hamster. We went home, lit the stove, and laid the hamster on the wood to roast like a sucking pig. We kept the fire going with boards from the floor of the hut. We had not strength enough to cut them up; we tore up the boards and shoved them in whole—one end sticking into the stove, the other into the window. Gradually the board would burn up and we would keep shoving it in bit by bit until it was all in the stove.

We ate up the hamster and decided to go hunting again. However, they began to hand out rations once more—twenty pounds of maize each. We received our share and right away we began to feel better. We forgot all about the famine. Spring had come. Green grass and flowers were all around us and people were starting to plant their gardens.

The famine was over but we had no clothes to wear—we had sold everything for food. I had no shirt and my pants were made of torn sacking, while mother wore a gown made out of various odd bits of cloth pieced together. We wore only bast shoes on our bare feet. We had no bedclothes and no crockery. But we were all eager to live, carefully gathering up every little thing we could find and counting it our own.

The kulaks were growing strong in our village. The rich peasants sowed a big crop, the harvest was good and they sold the grain in the town for cattle. Ivan Grebenkin bought five horses, two cows and four camels, while his brother Yefim also bought livestock and acquired a flail, several ploughs, harrows and waggons. But poor as we were, our farming could not prosper as theirs did. By the time the winter of 1923 came round, we were without bread.

Mother went around the village begging. She went out in the morning with a soldier's pot in her hand and an old tattered bag slung over her shoulder, and in the evening she came back with soup and milk, crusts of bread, pancakes and pies. All this, however, was beginning to tell on my mother's health; she fell ill and had to go off to the town of Pugachovsk for an urgent operation.



Mind You Don't Die Now!

I hired myself out as cowherd to Glagolev. He paid me for my work with a jug of milk and a hunk of bread a day. Mother survived her operation; she remained in the town, living on charity and sending me what she could spare. During the winter I lived alone in the hut, getting the parcels from my mother. Lying full length on the stove, I would spend the day reading the psalter, printed in Slavonic script, and the bible.

Once I was reading about Sodom and Gomorrah when suddenly the door opened and who should walk in but my elder brother Ivan. We hadn't seen him or had any news of him for many years. He was wearing a Red Army helmet with a star on it. I jumped off the stove and ran over to greet him, brushing the snow from his grey army coat. He told me he had been serving the whole time as clerk in the town of Kungur, in Regiment No. 314. "The people living in that town are Uzbeks," he said. "They wear long strips of cloth wound around their heads and always dress the same—summer and winter alike; and they wear a dagger in their belt. The huts in their country have no windows."

"And who are they?" I asked. "Are they savages?"

"No, they're simply illiterate and uncultured because tsarist Russia harmed them. They have horses like we do, only smaller and they call them donkeys. We harness a horse to a cart or a waggon, but they lay the load on the back of the donkey and carry it that way."

"Why do they do that?"

"Because there are mountains there and you can't drive a cart or waggon."

I was glad when my brother told me how people lived out in the wide world. It seemed to me that they had a much worse life of it than we had in our village.

And when on February 1, 1927, my mother sent me a letter saying: "Come to Pugachovsk at once," I thought to myself: "Why should I go?" Here at any rate I had comrades, people I knew.... But I conquered these feelings and set out for Pugachovsk with my bag slung over my shoulder. I had leather boots at that time but my suit

was made out of sacking, and as the frost that winter was so hard it made the nails crack out of the roof, I didn't spend much time sitting in the sledge on the way to Pugachovsk but ran almost all the way behind the horse in order to get warm.

At Pugachovsk I went down Moskovsky Street to where the old wooden cathedral stands, counted with my fingers one, two, three houses—there it was! House No. 9. It was a little monk's cell standing under the bridge of Proletarsky Street. I knocked and asked: "Does Starikova live here?" "Yes." "And Irene Konovalov?" "Yes, she's living here too. What do you want her for?" "I'm her son." "Well then, come in; your mother's coming tomorrow."

Before entering into conversation with the landlady, I asked permission to get acquainted. The landlady introduced herself as Maria. After that I grew bolder and questioned her as to what my mother was doing and why she had sent for me to come from the village.

"She wants to arrange for you to learn to be a shoemaker."

When I heard that, I was very glad indeed. "Now," I thought, "I will break loose altogether from the darkness of the village. I'll write a letter to my brother and ask him to read it to the whole village out loud. Then my friends will say: 'Look at Pashka, he's gone to study, the crazy fellow.' However, it didn't turn out quite like that.

Mother took me to many many places—to shoemakers, locksmiths' and other shops. But nowhere could I get taken on. March, April and half of May passed by, and I was still roaming the streets of Pugachovsk looking for a job. Sometimes I would shovel snow for someone and earn fifty kopeks that way.

At last my mother found a wealthy joiner, Ivan Popov, and asked him to take me on as an apprentice. He had two apprentices already—Mishka and Mitka. They acted like friends to me and advised me not to work at Popov's. Ivan Popov was a drunkard; he spent all his earnings on drink. Mishka and Mitka told me: "You'll be in the same boat with us. We've been working here for a year but he hasn't taught us anything yet and he's never given us any money

at all. You'd better go to his son-in-law, Ivan Ivanovich Esipov. There you can really learn the joiner's trade."

I took their advice and decided not to go to Popov but to his son-in-law Esipov. I was just seventeen years old at that time. I came to Esipov and, bowing low before him, said: "Take me, for the love of god, to be your apprentice." He examined me from head to foot and asked: "And if I do, you won't bring me before the People's Court afterwards?" I answered in an imploring tone, as humble as could be: "How could I do such a thing, Ivan Ivanovich? I don't even know what the court is for." "Well, look out," said he. "If I notice any discontent, you're fired."

It was fixed up that I had to do everything he told me and that I was to learn the joiner's trade from him. He promised to buy me a shirt and trousers and to feed me at his own table.

So I started work with him. My first job was to dig him a cellar. I had to sweep out the hut and nurse the baby.

Esipov's wife Toska, the daughter of Ivan Popov, was a bad woman; if she was discontented with the least thing, she'd flounce off to bed and stay there sulking. But Ivan Ivanovich gave in to her all the time. When she cried, he'd start whimpering too, just like a kid: "Toska darling, I'll give you anything you want, only please stop crying." She used to stamp her foot and order me about: "Play with the baby, Pashka! Take away the linen!" After dinner she would make me wash the dishes and fetch water from the well. Ivan Ivanovich made me do other things—dig a well, boil glue, plane beams of wood, sweep the yard every day, clear away the rubbish and water his favourite flowers which he called "Toska's eyes".

So I worked for three months. My clothes were ragged and my shirt was torn to shreds so that you could see my navel. I made up my mind to ask my boss to buy me a shirt and pants but he answered: "You're not engaged to be married just yet, are you? That shirt's good enough for you. Do some work for a change."

Every evening Ivan Ivanovich went off to the public gardens with his wife, leaving the baby in my charge. "Mind you don't go to sleep before we come back," they said. One time I waited for them

until three o'clock at night. I waited and waited but they didn't come and gradually I dropped off to sleep. I was tired out after the day's work, slept like a top and didn't hear the baby crying. Ivan Ivanovich and his wife came back. They knocked and knocked but I didn't hear them. They came and looked in at the window, heard the baby crying, saw the lamp burning on the table and no signs of me anywhere. They knocked and called but I went on sleeping like a log.

Ivan and Toska got frightened. They called the neighbours and began taking out the window frame in the presence of witnesses. They'd hardly begun to do so when I suddenly woke up and rushed to open the door. Ivan Ivanovich strode into the room and went straight to the baby first: "Toska, he's been crying his heart out!"

Then, without saying a word, he seated himself on a chair and surveyed me from head to foot. Suddenly he jumped up, stamped his foot and cried, pointing with his hand to the door: "Get out of my house!"

So in a terrible fright, at four o'clock in the morning, I came running to Maria Starikova's. But the cocks had not crowed that morning before Ivan Ivanovich came round and was waking me up: "Pashka, are you going to work today or not? Or must I get someone else?..." In the end he taught me how to make a stool.

From there I went on to work with Kolya Kizhayev. He was a good fellow although he kept up his joiner's shop on his own. He took me on as an apprentice, at first giving me a wage of seven rubles a month. He took me to the joiner's bench, gave me a tool, told me how to use it, and only then did he let me start work. He let me make tables, stools and other furniture. He showed me and explained to me exactly what to do and reminded me: "If you don't understand, ask." And if I didn't understand, he was always ready to explain.

I liked the shop and I wanted to show him my gratitude by helping him in the house work. But he bawled me out and asked me what I wanted to interfere in that for. "You've got to learn," he said. "You stick to your lathe and learn something that'll be of use to you."

“Put on the belt, Pavlo!” Kolya Kizhayev had a motor saw. I adjust the Ford motor and wait for Kolya’s command: “Start her up! Full speed!” The saw revolves rapidly and screeches as it tears through the wood. The motor buzzes, the fly-wheel spins more swiftly. Metre after metre, the boards are cut—there’s hardly time to bring them to the saw. “Stop!” I stop the Ford motor. Kolya comes up smiling: “That’s what I like to see! That’s the way to work!” He was always praising me for my agility.

Spring was coming, the sun was drawing the moisture out of the earth, the fresh grass sparkled, people were gay, went strolling on the Avenue of the Revolution and dreamed about the future. But I was content where I was. I thought the only thing that mattered was to have a good master to work for.

In this I was deeply mistaken and deceived myself. Later I came to understand that what matters is not having a good master, but life itself, the general state of things in the Land of Soviets. But at that time I had no comrades in the town. I didn’t know what other people were doing there. I don’t blame Kolya Kizhayev for this; he gave me all he could and all my life long, whenever I take a plane in my hands, I shall remember him.

In 1928, a Soviet joiners’ workshop was organised in the town, where house furniture could be made much more cheaply than at Kizhayev’s. We stopped getting orders altogether and Kolya had to close down his business. However, he didn’t leave me to my fate but arranged with the head of the joiners’ shop at the Department of People’s Education that I should work there and go on learning the trade.

The manager, Vassily Gerasimovich Golovin, told me that the shop was worked entirely by formerly destitute children. I got a fright when I heard that. “God, I’m sunk,” thought I to myself. The first day at the joiner’s bench I found myself standing next to one of them. He asked me: “What’s your name?” “Why do you have to know?” “I have to know because I’m the monitor here.” I told him my surname and first name. “And your father’s name?” he asked me. “Ilyich” I answered. “Ilyich! Why, we’re namesakes then!” And he

burst into a roar of laughter. The other kids left their work too and came crowding round, asking where I'd come from and what I had done. I told them how I used to live in the country and how I'd been at work under two masters.

Vassily Gerasimovich gave us lessons in theory every day—drawing, reading blueprints, etc. The lessons were friendly and gay. But in June the weather began to have its effect on those fellows who had been used to leading a wandering life. It grew hot and they began to lose their taste for work. Soon one or two of them slipped off. Then a young fellow came from the District Department of Education, called us all together and explained to us why the state was educating the former waifs and how much money was spent on this. And I sat there listening with all my ears but not understanding a thing that was said.

This young Komsomol was not the only one to visit our workshop. He was followed by many leading workers in the Pugachovsk Party organization. With their help we organized a wall newspaper *The Joiner* and classes to teach those who couldn't read or write. And we organized an excursion in boats on the river Irgiz. We spent two whole days on the river and collected specimens of different species of trees, fungi and other vegetation.

The staff of our workshop was reinforced by some experienced workers. I myself passed the examination for the fifth grade in joiner's and turner's work and thus came to be reckoned among the experienced ones. We had plenty of orders at that time. We made desks, blackboards, panelled doors, writing tables and cupboards.

On September 10, 1929, they brought a message for me to the workshop saying I must appear at the Builders' Trade Union at once. I began to think and asked my comrades' advice. "Why should they send for me?" I said. "Go on. What are you afraid of?" they said. So I went. At the Builders' Union they told me: "We're mobilising you to go as our representative and help collect the quotas of grain for the government." "But what's the idea? I've had no schooling and I've only been in the union three days." "That doesn't matter, you go." I again refused but they told me: "If you won't go, we'll expel you

from the union.” When I got back to the workshop I asked the others: “Well now, comrades, what’s your advice? Do I go or not?”

“You’ll have to go.”

“There’s nothing to be afraid of if they’re sending you.”

I decided to go, though I didn’t have much idea what it was all about. They collected us together, me and twenty other fellows like me. And not one of us understood anything. The instructor made us a speech full of eloquent phrases about kulaks and kulak hangers-on—the devil only knows what it was all about. They divided us up and sent three men to every district. And so a few days later found us on a rickety cart with a tired horse entering the village of Ivanteyevka.

We arrived there at night—everything was quiet, deathly still, the huts standing there like trees in a forest and not the least rustle of sound to be heard. We spent the night under the cart in the churchyard. Next morning the others started out to reconnoitre. They came back disheartened. “What’s up?” I asked them. “To hell with the grain collections anyway. We’ve decided to go back.” “Why, what’s the matter?” “Sure they say it’s tough working here, especially in the villages.” “Well, why did you come then? It’s late to start discussing it all now.”

We went to the district committee of the Party. There they gave us instructions on how the grain collections were to be carried out. They warned us: “If the class enemy begins to resist, inform the District Executive Committee at once.” They gave us our papers. Mine read as follows: “This is to certify that Konovalov, P. I., is a plenipotentiary of the Ivanteyevka District Executive Committee for the carrying out of the State grain collection, of the third Loan of Industrialization and of the autumn sowing campaign. Comrade Konovalov is hereby empowered to verify the fulfilment of the directives of the higher organs.”

We set out for the village of Arbuzovka. The first thing that met our eyes there was the slogan hung out over the doors of the Rural Soviet:

“All power to the Soviets. Let us fulfil the Grain Collections Plan 100 per cent. Chairman of the Rural Soviet, Zuev.”

The inventor of this slogan deemed it necessary to affix his signature to it. Arbuzovka's assignment of grain to be collected and delivered to the government was six thousand poods, but only two hundred poods had been collected so far. We drew up a plan of work, divided the village into sectors and held two meetings with the peasants in each sector every day. We carried on agitation from morning till night, but on the sly the kulaks were agitating even more than we were. Nevertheless we succeeded in getting the peasants to pass a resolution to organize a "Red Harvest" of three thousand poods by September 20.

The poor peasants and the farm labourers informed us of the agitation the kulaks were carrying on and told us in what places grain was being hidden. Besides that we received many anonymous letters. We wrote to the Rural Soviet giving them the gist of these letters, and the Rural Soviet passed a decision that those who concealed grain would have to deliver five times as much, while those who persisted were to be brought before the court. We carried out a search in four kulak farms and the information we had been given in the letters proved to be true. I remember how on one kulak's farm we found three hundred poods of grain hidden under potatoes in the cellar. The Rural Soviet soon passed another decision—to increase the assignment of six more kulak farms fivefold. As for the poor peasants, they kept their word. The "Red Harvest" was carried out on time, by September 20, and the quantity of grain delivered to the state was not 3,000 but 4,500 poods. Before our departure Zuev gave us his word as a Bolshevik that the rest of the assignment would be completed on time.

After that we went on to another village, where we also fought against the kulaks and helped to win the people away from their influence. I got back to Pugachovsk after an absence of twenty days. But I was already tired of the workshop. I had made up my mind to go and work in one of the big factories. So I asked to be given a test in joiner's and turner's work before I left and I passed the examination for the sixth grade and got my certificate. I bought a ticket in a cattle van as far as Chapayevsk and said farewell to my

sweetheart Nina Skromova. She was angry at my going. I myself was sorry to part and it seemed dull and frightening going alone like that. But I'd made up my mind to go to work in a factory.

During the journey, while turning the pages of the newspaper, *The Volga Ploughman*, I read an article under a big headline telling how the kulaks in the last village where we'd been working had crept up to the hut of an agricultural labourer who had been very active in the grain collection campaign, and, firing at him through the window, had wounded him in the chest. "The swine!" I thought. "I wonder if the poor fellow's dead or not?" But the only answer to my thoughts was the drone of the wheels and the shrill whistle of the engine.

At Chapayevsk on the edge of the town I found the little wooden hut where my uncle Feodor lived. He worked at a factory. I had a bag on my back and looked just like a fellow on the bum. So I thought to myself: "Come on, let's try and see if they can recognize you or not." It was his wife Feodora, my godmother, who opened the door to me. "Give me something to eat for Christ's sake," I said, and she gave me a hunk of bread. I then asked if I could sit down and have a rest. She said I might.

She sat down beside me and asked me where I'd come from and why I was begging, seeing I was such a young fellow. I answered that I was from the village of Chernava, that I wouldn't tell my name but had asked for alms with a special purpose. She looked me hard in the face. "Pashka!" she cried suddenly. "It's you, my godson!" We both jumped up from our chairs and kissed each other. And then my uncle Feodor arrived. "Why, that's my nephew," he cried. "You're welcome. Take your coat off and have a rest on the stove. Then we can have a talk." I felt that I was at home here.

Thanks to uncle Feodor I managed to get right into the joiners' shop in the factory. Everything at the factory was new to me at first—planers, band saws, grinding and drilling machines, *The Udarnik*, the wall newspaper of our shop, came out once every ten days. The editor was Ivan Shatalov, a very vigorous outspoken sort

of fellow, who always upheld the interests of the job and of the workers.

Once while he was working on his machine I came up to him: "Shatalov, can you spare me a couple of minutes?" "Sure, what do you want?" "I want to be a worker-correspondent." "Stay behind after work today and you can help me get out the wall paper. You'll be our correspondent from this on."

So that same day I helped them get out the wall newspaper and wrote an article about the fireman Matrenin, telling how he had bawled me out and used bad language instead of explaining a thing sensibly when I didn't understand it. Next morning the paper was hung on the wall; the workers eagerly devoured the contents, laughing as they read. From that day, the Komsomols began to draw me into their meetings, and in February 1930 I was accepted as a member of the Young Communist League. In November of the same year, the district committee of the Y.C.L. called upon me to go and work at the Stalingrad Tractor Plant.

And so one day I saw looming up through the morning fog the four-storeyed office of the great Tractor Plant, all glowing with electric light. I looked at my bag and my little bundle of bed linen and belongings and wondered what the place had in store for me. In the factory committee of the Komsomol I met Astrinsky, a worker who had charge of the supply department, and questioned him about their getting me a room. Astrinsky answered me with a smile: "I'll do it today."

As we went out of the room together I thought to myself: "It's the very first time he's seen me and yet we're getting on fine. That's the sort of man for you, must be a real hundred per cent proletarian..." That same evening they gave me a room in house No. 564, a new stone house.

They put me to work in the tool shop. I found the foreman there—Samarsky, an old fellow in spectacles. "What grade are you?" he asked. "Sixth," I answered. "And where's your certificate?" I fished a whole wad of papers out of my pocket. The old fellow read

them through and then he looked up at me over his spectacles with a grin on his face. "You're the sort of man we want," he said.

I got a good set of tools and I passed the test which they gave me—making a tool chest. I hunted all-round the shop to find the wall newspaper. There was one solitary number which had been hanging on the wall for four months and it was all covered with cob-webs. I collected a group to act as worker-correspondents, we chose an editorial board and during the next four months we put out twelve numbers of the paper.

I myself wrote an article pointing out that we were not mastering American technique sufficiently well. The turners' brigade was regularly producing spoiled output through lack of acquaintance with the American equipment. That was the reason why more than one third of the lathes in the shop were forever having stoppages. There was no reckoning up of the exact capacity of each lathe or of the productivity of each worker. And consequently no one could give a concrete answer to the question of exactly who and what was hindering the fulfilment of the industrial and financial plan.

I wrote that the brigadiers and foreman of the shop were not fighting for American technique. The foreman Tolkachev knew nothing about blueprints and did not know his way about the lathes any too well. The senior foreman Suderevsky wanted to explain the working of the lathes to him, but Tolkachev refused to be given lessons in the presence of the workers. This false shame was typical of others besides Tolkachev. Many of the foremen deemed it a disgrace to study the lathes and preferred to remain in ignorance.

And meantime the American specialists in our shop, who were being paid in foreign currency, were standing idle because the shop management could find them nothing to do! They wanted to have workers assigned to them whom they could teach, but the management disregarded the matter altogether. Engineer Stout, instead of being given serious work to do, was kept busy making card-indexes. I wrote: "The Americans' stay here is drawing to an end. A Russian worker must at once be assigned to every American so that he can learn from him."

This article had hardly appeared in the wall newspaper when the foreman Tolkachev, a Communist, came up to me in a rage and shouted: "Get out of the shop!" He flung open the door and shoved me out with a kick of his foot. This disgraceful happening was seen by the workers. The worker-correspondents came running up to me:

"What happened?"

"Did you see? He's forbidding me to write about him!"

"We'll show him!" said the worker-correspondents menacingly. That same day we wrote out a statement about Tolkachev's action and sent it in to the Party bureau and the shop committee. In the evening they called a special meeting of the Party bureau and Tolkachev got a reprimand. A special commission was appointed to verify the questions raised in my article. Representatives from the Editorial Board of the printed factory newspaper and of the Workers' and Peasants' Inspectorate took part in this work. All the facts mentioned by me were confirmed.

Soon after I was promoted to have charge of the organizational and mass work of the Stalingrad paper, *The Struggle*. I went around among the villages of the Stalingrad district, collected worker-correspondents and village correspondents, conducted investigations together with them and organised collective articles to be sent in to *The Struggle*. We wrote about the slackness of labour discipline on the collective farms, showed how even some chairmen of collective farms and rural soviets take the best horses when they have to go to town for ten or twenty days and so interfere with the work at the height of the ploughing or the harvesting season. We wrote how on the Bolshevik Collective Farm the agronomist did not draw up a plan for the harvesting, how no attention was paid to the question of digging silos, how the vet examined the cattle carelessly. We noted how the engine of the collective farm mill was standing in a completely exposed position, surrounded by heaps of rubbish and straw which had already caught fire once from a spark that fell from someone's chimney.

We wrote how on the Samokhvalovsk Collective Farm the flour and vermicelli in the warehouse were kept alongside of kerosene,

sheepskins and harness; how the semolina in the day nursery was kept together with the soap. There were no towels or wash-basins in the day nursery and the cook did his work without any apron. We reported how in the Kotluban State Farm the windows of the dining room were broken and the floor was never washed, how the food in the food-store was going bad, how the same broom was used to sweep the floor and to dust the shelves where the bread was laid. There is a watchman living in the dairy store, though this has been forbidden several times by the medical inspector. While the milk is in the dairy, dust and dirt drop into it from the ceiling, so that every day some five or six cans of spoiled milk have to be poured away into the slop-hole. In the store of the Kotluban State Farm we found five metres of flannel and two packages of semolina hidden away under some rubbish behind the counter so that they could afterwards be got out through the back entrance.

At the meetings that were held we told the workers and collective farmers in plain language about the things which we had discovered at their place of work and we quoted examples of good work which they ought to take as their models and try to imitate. We encouraged the Party and trade-union organizations and the detective service to take part in our investigations and tried to see that measures were taken at once to do away with the shortcomings to which we drew attention. Thus, we succeeded in having the manager of the mill on the Bolshevik Collective Farm reprimanded and the vet removed from his post. On the Samokhvalovsk Collective Farm we succeeded in getting the chief of the business department removed from his post and the head of the day nursery reprimanded. And on the same day we found the flannel and the semolina behind the counter of the store on the Kotluban State Farm, we got the militia to conduct a search in the houses of the chairman of the management and of the manager of the store. There they found one hundred and two metres of cloth, fifteen cakes of soap, four suits and many other goods taken from the store. They were expelled from the Party and brought before the court. We made it our rule only to write a note to *The Struggle* when the local organisations had already taken

steps to correct the shortcomings discovered by us, and to report on the steps taken in our note to the paper.

At the present time I am working at the Stalingrad Tractor Plant again as assistant chief of the department of foundry shop No. 2. I have finished the first term of studies at the Communist College and am now going on to the second. I am editor of the wall newspaper of the college and have joined the Party. In the summer of 1932 I was given forty days' vacation and I decided to go and revisit the countryside where I was born.

I visited Pugachovsk and the neighbouring districts as special correspondent of *The Volga Pravda*. There I found state farms, tractors, harvester combines. On the Kushinsky State Farm alone there were twenty-two harvester combines. And incidentally I also saw how badly they still handle the machines. On the Chapayevsk State Farm, for example, a harvester combine was left standing idle for eight hours just for lack of one part, and this part could easily have been obtained on the premises. On the Kushinsky State Farm a combine harvested only three and a half hectares a day instead of thirteen hectares which was its proper assignment.

In conjunction with the Editorial Board of the Pugachovsk newspaper, I organized brigades of worker-correspondents and conducted investigations on the state farms. We showed up cases of inefficient management. Thus, for example, the manager of the Chapayevsk State Farm issued an order without any foundation saying that the first and fifth sectors of the farm, which had the best machines, were deliberately upsetting the harvesting campaign. This was a very severe charge against all the workers, specialists and Party nuclei on these two sectors, and as a matter of fact there were shock workers there who constantly carried out more than their quota of work.

We wrote that on the Kushumsky State Farm the average amount of rye that was wasted in reaping, piling the shocks, carting and ricking amounted to about 22 per cent of the total, that no one thought of gleaning the corn; that the scattered ears of corn were not raked up and consequently got pilfered by those who traded in grain

unlawfully. But it would take too much time to tell all about that here. I will only say that one way and another I found no time to get to my native village Chernava.



The Kid Brother

T. A. FANDYUSHIN Brigadier in the Light Forge Shop

Ovsyanaya is the freight station just outside the little town of Plavska. From there you can see all the big freight trains go by, and when I was a kid I used to watch them and dream of becoming an engine-driver one day. I used to work for Smirnov, the station-master, cutting wood and fetching water for the cow.

I taught myself to read and write, for there was no chance to go to school in a place like that. Mother had a hard time of it after father died—she worked as caretaker, so her wages didn't amount to much, as you can imagine. I was just nine months old when father died. Then mother married again and her second husband was very strict—you'd only got to start fooling and he'd give you a licking with his belt.

Once my stepfather lifted me up by the hair, laid me over his knee and began belting me. But when mother sees it, she comes rushing up, scratches his face all over and takes me off to live at grandmother's. Stepfather was broken-hearted—'cause she came back next day bringing me with her.

I made it up with stepfather later on. He fell ill with consumption, used to spit blood the whole time. He'd get into bed with me and say:

"For pity's sake cover my legs up, sonny, or I'll croak."

Well, he croaked anyway. I was ten years old at the time. And after that we had an even harder time of it. I helped mother all I could, sometimes doing the housework and sometimes lending a hand to the men loading sacks of corn on the railroad. I would stand on the freight car, they'd lift up the sack and I'd slit it open right there, as it rested on their backs, so that the oats or wheat would pour out into the car.

But I still wanted to be an engine-driver! And when the other kids came around to my place, we'd either play at trains or go riding on the buffers.

Koska, the switchman's son, was a crazy sort of fellow who liked bumming around. I remember we once rode forty versts with him on the buffers. He was a terrible one to steal fruit. He'd go snooping around the market carrying a long stick with a pin on the end of it. Stealing up beside an apple-cart, he'd spike an apple and be off in no time. Once, though, a *muzhik* was a bit too quick for us. Koska threw away the stick and ran off, but the *muzhik* caught me instead and nearly shook the life out of me.

Once Koska and I and some other kids took a horse off to graze in the fields. He and I rode together on the one horse and all of a sudden she put her foot in a fox's hole. Koska jumped off and said let's smoke the fox out.

"Sit down and guard the hole," he told me.

They burnt all the dry grass, while I sat and waited, but still the fox didn't come out. So they gave it up as a bad job and we all went off to play rounders. But as it happened one of the fellows ran off to

chase back somebody's horse that had strayed into a field of rye and he jumped right on top of the Fox's hole and the earth caved in under his foot. So we came running up and started digging out the hole.

"Hi, look! There's a fox lying there. She's suffocated," someone shouted.

It was a vixen and child. We tried to milk the dead vixen so as to feed the baby fox which was still alive, but it died too. So we cut off the mother's tail and went off to town. We went fooling around the park where the girls were promenading and all the girls we met we flicked over the lips with the fox's tail. We went fooling all around the suburbs, swishing the girls with the fox's tail.

We got taken up by the militia and I was the last to be questioned. We arranged among ourselves not to tell how the fox had died because hunting in the spring was forbidden. So I said:

"We didn't kill the fox. The horse trod on her."

"What are you lying like that for? Your friends have confessed."

"Well, then they were kidding you, that's all, because I'm speaking the truth."

I remember they took me off into a room, where a lot of drunks and arrested persons were sitting and I started blubbing.

After that we decided to beat up the girl who'd been the cause of our getting taken up by the militia. We met in the evening, and one fellow whose father was pretty well off brought along some vodka.

"Let's all get soused and then we'll knock her silly."

It was the first time I had drunk and it made me all giddy. My head was spinning around but I felt gay and reckless. We all went off together to the water-meadows where the girls used to gather of an evening. Koska was the first to pick out our girl. He slung a big stone at her and smashed her skull and we ran off different ways. I ran home, threw myself down on the bed and lay there thinking:

"I hope to god nobody finds out. It was dark anyway...."

My brother was already a Komsomol at the time. One day I came home after a fight with my shirt all torn. He gave me a good bawling out and forbade me to have any more to do with Koska.

Soon after that my brother went off to work at the Lugansk Plant. I began going to school and then, at the age of fifteen, I started work as a freight handler. The freight handlers taught me to drink. When they drank they'd raise their glasses to me saying: "Here's to the young'un!" At first I was squeamish about drinking, but later on I got used to it.

Those were hard times. Sometimes there'd be no work at all, other times you'd be heaving sacks the whole day long—the sacks of salt are the worst, for salt weighs heavier than other things. All the same I found time to study and went to school for three winters.

In 1928, when I was sixteen years old, I wrote to my brother telling him I was having a hard time of it, so he sent for me to come and join him at the Lugansk Plant. When I arrived, he took me into the forge shop to show me around. I remember how scared I was when I first saw the big steam hammers. We went on into the pipe-rolling shop where I got another awful scare from a red hot pipe that came rolling across the floor in our direction. I turned and ran when I saw it, thinking I should never escape. My brother burst out laughing and shouted:

"You've only got to step over it and stay where you are!"

But I couldn't. I ran for my life with the pipe following me and never stopped until the pipe did. My brother said to me afterwards:

"I'm ashamed to be seen around with you, kid. You're afraid of everything."

At the Lugansk Plant I began learning the pattern maker's trade in the wood shop where they make different sorts of patterns out of wood. I liked that job—it was a change from loading freight anyway.

In the spring of 1930 they began recruiting Komsomols for the Stalingrad Plant. My brother was one of those chosen and I put in a request to be taken through the Lugansk committee of the Komsomol. So we both left for Stalingrad together in the spring of 1930. In the train we sat thinking about how we should have to study when we got there and I thought, for my part, that I should try to become a good pattern maker.

When we arrived at the Tractor Plant, it seemed to be all dust and bare steppe; we even found it a bit dismal. At first they put us in a dormitory, but later some skilled workers arrived and we were asked to move out to make room for them. It was a good job it was summer time; we went under canvas and formed a commune.

All the time we were studying at the Factory School; one day we'd study and the next work on the construction job. We were given all the dirty work to do, but still it was interesting. For one thing, our crowd always stuck together and for another, we were always having a chance to learn something new. Then it's always a treat to be working with my brother—he's a crazy fellow, always finds something to laugh at.

Once we were sent to fetch some glass for the office. They gave us a camel to carry the stuff. We went off to the warehouse, got the glass and loaded it on the camel's back. But when we wanted to start back again the camel refused to go and we didn't know how to handle her. We punched her in the right side in order to make her turn, but she only bellowed. We had the hell of a time with her but we managed to get back somehow. Only my brother, who was riding, lost patience before we arrived and jumped off, declaring:

"It's a shame to be seen on a beast like that!"

They taught us something at the Factory School but a lot of the teaching was punk. And when we were brought face to face with a steam hammer for the first time, we couldn't make head or tail of it. Each of us in turn had a try at drop forging a part with the hammer, but it was a dismal failure. The Americans only shook their heads.

So it was decided not to waste metal and we were given logs of wood to learn the art of stamping on. At first I couldn't do anything with the hammer. I'd press the pedal, but for some reason or other the hammer wouldn't strike. It turned out what you have to do is to press the pedal when the monkey is going upwards and I had been pressing it when the monkey was coming down. Then you can press as hard as you like but you only shut off the steam in the valves and nothing happens.

The American, Luke, began showing me how to handle the hammer, the arrangement of its driving gear, and how to heat the steel. Mr. Luke was a good teacher. Only one time he came in drunk and leaned over to look at something with his head right under the hammer. A good job the foreman pulled him out and sent him home.

Mr. Luke wore a black suit and almost always had a pipe between his teeth—if he wasn't smoking he'd be chewing tobacco. I always tried to get into conversations with him so I could learn something. We'd go off to a corner where there wasn't so much noise and I would ask him what was the right temperature to which you ought to heat metal.

Luke found something to serve as a blackboard and on it he drew a lot of tiny circles all close together like seeds of millet. "That's how metal looks when it's well heated," he said, "and its colour is like milk." He explained that when the metal was overheated, the circles were big and not so close together. Metal that's heated that way is all full of holes inside like a stuffed pie.

In the autumn of 1930 I was made a heater at the three-ton steam hammer on which the connecting-rods are made. The heater has to work like the Americans do. That's to say, you have to charge the furnace so that it will keep the whole shift going and allow you to take out the hot pigs one after the other in a steady stream—as soon as you take out a hot pig, you put a cold one in the furnace to heat up. That way the temperature in the furnace is kept at the right level and the hammer is never kept waiting.

The furnace needs watching the whole time. Sometimes, maybe, I would lay something in the furnace not just the way it should be. Luke might be standing some way off, but he would see all the same. He'd spit on the ground, come striding up and do it over again his own way. At last I learned to pay attention to what he said, learned to allow just so much air and crude oil so as not to over-heat the metal and spoil it.

In the beginning I made many mistakes. I used to take a pig out of the furnace and hold it in the tongs till the hammer operator was

ready to take it. Luke saw me do this once and got quite angry with me.

“That way you’ll fag yourself out in no time,” he said.

He hauled up an iron box and told me to lay the pig in there till the operator was ready to take it so my arms wouldn’t get tired holding it. It seems a small thing. At first you don’t catch on to the importance of a little thing like that.

After a couple of months they put me to work as a smith on the three ton hammer and from May 1, 1931, they gave me the job of forging the connecting rods with a whole brigade of workers under my charge.

My assignment was 200 connecting rods a shift. The fellow who was on the job before me never managed to make it, but I soon began hitting a figure of 200 or 250 a shift. In June 1931 my assignment was raised to 300—and I began making 350. In August they gave me the American assignment —400—and I answered by giving them about 500 a shift. In December they raised my assignment for the last time—to 450. Even Luke, the American, took fright at this and at one of the meetings he got up and protested:

“That’s too much! There aren’t many men in America who could do it.”

However I started giving them 500 regularly. Then 600. And this spring I got as high as 800.... How did I do it? Of course, I didn’t get these results in a day. In the first place, they had picked out a good lot of chaps for my brigade. And in the second place I taught my heaters to do their work in the American way—the way I had learned to do it myself. In my brigade they keep on hauling pigs out of the furnace the whole time, because whenever they haul out a hot pig they lay another in the furnace to heat up. Whereas the other shifts go on working in the old way; they don’t lay in a new lot of pigs in the furnace till the previous lot has been taken out and while the second lot of pigs is heating up, the hammer has to stand idle.

I remembered Luke’s instructions. I always saw to it that the furnace was charged correctly and never forgot to oil the hammer. Never once did the piston rod get jammed during my shift, I always

kept it well oiled. Whereas the other shifts were always having stoppages of an hour or more.

I used to have an assistant whose job was to blow away the dross. But I arranged the steam pipes so that the steam could do it automatically—I'd seen a photo of such pipes, as used in America. After that I didn't need my assistant any more and I transferred him to lend a hand to the heater, so as to make it easier for him to tackle two furnaces.

So now me and my brigade are turning out six or seven hundred rods a shift, while on this very same hammer the brigadier working second shift can't make more than three hundred. I was awarded a premium for my good work, but I still went on trying to do better. I wanted to show the Americans that I could make their assignment and beat it. And when my name began to appear in the papers, that only made me want all the more to show what I could do. We weren't working on piece-rates at that time, but never mind—I was out to beat America. D'you know the cartoon they did of me in the paper? There's me, Fandyushin, working my hammer and the connecting rods flying out from under it and hitting McCormick, the American factory-owner, on the head. It was the hell of a good drawing too.

This spring we got in an awful fix though. We had to put out one hundred and fifty tractors by May First and we'd got behindhand with the supply of connecting rods. What were we going to do about it? We were nearly tearing our hair out, for sometimes the Red October Plant would be late in giving us metal and sometimes there'd be spoilage.

I remember one evening, Sheinman, the head of the forge shop, and Pudalov, the manager himself, entered the shop and came over to see me. Maybe you don't know what I look like when I'm at work? I get dirty all over and the sweat pours off me from the heat. When the sweat dries it's like a white coating of salt all over my shirt.

Pudalov and I went over to one side, where there was less noise, and he said to me:

“Well, Fandyushin, things are going badly. We aren’t getting any connecting rods. Can you help us out?”

I answered that we’d see to it that they got the rods.

Our brigade set to work there and then and nothing could stop us. If there was no metal, we went off to the Red October ourselves and got it. As regards spoiled output, I thought a long while about it and came to the conclusion that the die used for the first operation was incorrectly cut, which accounted for the excessive depression. They let me make the die anew, and the rods began to come out all right. So, by dint of some overtime in the last few days, we just managed to give them the quota of rods.

We held our May First meeting in the circus. When I went to the meeting, I didn’t know who was going to be proposed for an award. They began reading out the list of names and when they came to the forge shop, I heard them read out Dolotov’s name. “Well,” I thought to myself, “if they’re giving him an Order, maybe I’ll get one too. I work as good as he does.” They went on reading out the names: Kubasov, Moskvichenko and then—Fandyushin—the Order of Lenin! Believe it or not, my head was all in a whirl. I heard the manager Pudalov making a speech about me, saying he’d seen himself how I worked, how I lowered the rate of spoiled output, how I could turn out twice as much as the Americans. Why is he talking that long about me, I thought...

And next morning, when I went back to work, I felt as though I could put my back into the job and work as I had never worked before.

This summer I spent my vacation at Kislovodsk. We had a swell time of it there. I enjoyed it a lot, especially the mineral baths. After going to the baths, you feel so limp you can hardly walk; going back to the sanatorium you can scarcely drag your legs along, although you’ve done no work at all, and when you get back, you lie down and rest again.

Evenings we used to play volleyball. The scientists’ rest-home was next door to us and there were some professors there who used

to come and play with us. One of the professors who played with us was quite an old man. We used to beat them mostly.

Well, I had a fine time on vacation down there, but when I got back I had some trouble. First, there was my hammer—it had been overhauled while I was away and they didn't make a good job of it. Then I had trouble getting a room. I almost left the Plant on account of that business—I got so mad with them for the way I was treated. I don't know how many times I went to Turchinsky—he has charge of these things—and told him:

“Comrade Turchinsky, it's impossible this way—two families living in one room. Since my sister's got married, there's no place for me to study and I get no peace.”

“We don't know anything about that. Your brother-in-law works in a different shop. Let them find him a room.”

So I went from one to the other and meanwhile we were having rows every day at home. I even asked to be discharged but they refused to let me go. The other fellows laughed at me and said:

“They're just fooling you, you chump! When there was work to be done, they all shouted: Fandyushin's a shock-brigader, he can beat the Americans. But when it comes to getting a room, they leave you in the soup. You'll have to be content with your Order, for you won't get anything else.”

I was so sick and disgusted I couldn't work. It seemed as if all the strength had gone out of my arms.

However, I tried once more, for the last time, and went to see Comrade Lipkin. He's one of our own boys—used to be a concrete-mixer, though he's working now as assistant to the manager. He went right up in the air and gave Turchinsky a good talking to.

“We find rooms for people who are no good,” he said, “and leave the best workers in the lurch!”

So they gave me a room after all—one in a fine house, with water, electric light and a bathroom. I get more chance to study now and I've started attending the Workers' University. At present I'm being trained for a foreman but I want to study technology as well. I'm going to make a good job of it. See if I don't!



“What the Hell!”

G. REMIZOV, *Die Forger*

I was born in the country. My parents were very poor folk and the village we lived in was full of rich folk—kulaks. My father and elder brothers worked as labourers and lived on their master’s farm. As for us, we had one horse and father got a couple of calves, working for a rich farmer. But I don’t remember father well; he went off to fight in the German war when we were still kids, leaving us alone, along with mother.

Till I was twelve years old, when out to work, I had nothing but a blouse to run about in; they’d got no other clothes for me at home.

When I was twelve I went to work for Michael Sukhov, herding cattle. He had thirty-six head of cattle. I hired myself out to work for him from one autumn till the next for six poods of grain, and besides that he lent me an accordion. And I used it to drive the cattle when I

was out herding. I made a good job of it. Michael's herdsman gave me eight poods of grain instead of six for my good work. They fed me there too. In the morning I'd get a drink of milk and some buns and in the evening, when I brought the cattle home, they used to give me a supper of whatever they might happen to have. Besides that they gave me a ragged coat to wear.

In 1924 we had a hard year. The herdsmen were only given half a pood of grain for a season's work and I, as a herdman's boy, got only ten pounds. I went home after that and decided not to herd cattle any more.

Then my uncle invited me to come and work for him at Chernushkin. That meant a big journey, for we at Perfilevsky lived a long way from the railroad—forty versts maybe—and I'd never been on a train before or seen one even. And uncle lived even further from the railroad than we did. I managed to get there somehow and worked hard all through the autumn so I'd be able to go to school in the winter. So I stayed on there. Uncle's children went to school, too—we all went together that winter. One of them was in the second class, the other in the fourth, and as for me, they put me in the bottom class. I found the lessons hard and couldn't keep up with the others, but they helped me out and encouraged me. The next winter I lived in a farmstead three versts from the school and had to go all that way for my lessons. It was winter-time, ice-cold, and my clothes were all in rags, so I used to run to get warm. Whenever I felt myself freezing, I started running and got to school that way. So I went to school all that winter and two months of the next winter, but then I dropped it. I was grown up by then and I had to start work.

I worked at home for a time and then they began organising the collective farms in our district. We joined an artel in 1928. It was at that time, too, that I became a Komsomol.

In the spring of 1929 I began attending courses for tractor-drivers. I learned how to drive a tractor and worked on one on a collective farm. At first I worked on a Fordson but that machine was

all smashed to bits and after one season's work they sent us ten Putilov tractors * and I started working on one of those.

In the autumn I went to work in the machine and tractor station. I was very quick at getting the hang of the machinery and they even thought of making me a brigadier, but they decided I was too young—there were some other fellows senior to me.

I remember once they left me to watch the tractors out on the steppe while the drivers went off. I was always fussing around with the tractors to be sure the machinery was in good order and when I'd finished with my own machine, I thought I'd try my hand with another one. So I tried...

The tractor-drivers came back after a while and began starting up their machines. "What's this?" says one of them. "My engine won't turn over." "Nor mine," says another. There was a terrible row about it, the tractor-drivers were all mad at me. I didn't mean to do any harm, but they wrote off a letter to the manager of the machine and tractor station saying what I'd done (only I didn't do what they said), how I had "fastened two tractors together, back to back, and tried which was the stronger." But that's not true. I only fiddled about with the machinery a bit, because I was interested in it.

It was while I was working on that machine and tractor station that they mobilized a thousand Komsomols for the Stalingrad Tractor Plant and I was one of those chosen. I went right off from the tractor without even having time to go home. My brother gave me thirteen rubles. I had one suit of underwear, already soiled, and a basket to carry my belongings, and I was wearing a jacket and pants lined with cotton-batting.

Well, I was given my papers at the district committee of the Komsomol and off I went to the station. There I met an old acquaintance, Alexey Batyushkin, who was another of the thousand Komsomols mobilized for the Tractor Plant. So there we were on the station—he with his little hand bag and I with my basket. We took tickets and found a place in a freight waggon, going into one of the

* *Tractors from the Red Putilov Works in Leningrad—Ed.*

corners, under the berths. The train was crowded with people, many of them with their families. We slept through the night and didn't see anything, but as the train drew near Stalingrad, some people in the car began to shout that they could see the Tractor Plant. The train went rumbling on and I thought the station would never come. Then at last we passed over a bridge and the train came to a stop. All the people got out. We got out too, but we didn't know where to go to—it was the first time either of us had been here. So we stood there wondering what to do. They told us where the Tractor Plant was, but we didn't know exactly which way to go. Then they showed us the tram-car going to the Plant, so we went there by tram.

That was the first time I had ever seen a town and I found it all very amazing. The noise, the crowds of people... It was even terrifying at first.

I wasn't admitted to the Plant yet, but was employed on the building works. We dug foundations, hewed stone and mixed concrete. We built a factory kitchen and a house for the workers. When they began choosing people to study at the Factory School, I had a talk with the secretary of our Komsomol nucleus and asked if I could be sent. "Right," he said, "you ought to go. You're the sort they want."

Well, I attended the technical courses for one month and then they sent me to work in the Plant. Ever since then, for the last two years, I've been working there as a smith.

That was the first time I'd been in the Plant. They took me into the forge shop and it seemed terrible to me at first—the steam hammers were working and there was such a din you couldn't hear yourself speak. A friend of mine took me to the foreman and the foreman told me to come back next day and start in. That's how I started work in the forge shop, and in the beginning I was afraid of everything and everybody—I was all alone with nobody there whom I knew and the men, the hammers, everything terrified me. They used to laugh at me at first.

Little by little I got used to it. I was given more work to do—up till then they'd only given me odd jobs. One of the smiths went off to

the Red Army while another left the Plant, and I was made a smith's assistant. I was kept on that job for a long time. Now I've been transferred to work as smith on the five-ton steam hammer. This is because I've been working here for some time now and because there is a shortage of workers—we haven't enough smiths to go round.

In 1931 when I was working in Kovalev's brigade as his assistant, I became a shock-brigader. Once I was given an award of eighty rubles for my work. We had a competition with Kubasov's brigade. Kovalev, our brigadier, would turn out 140 parts in a shift and Kubasov 150. Kovalev would come around next morning, see that Kubasov had made 150 and next shift he'd make 160. I used to call five-minute meetings of our brigade to discuss things—the Komsomol told me to do so, I being the only member in our brigade. If there weren't enough tongs or something else was lacking, we'd make it known so that by next day the want would be supplied. During that competition we threw our whole energy into the work; we wanted to reach a record figure. We had articles about it in the factory paper. Both Kubasov and Kovalev did their very best. Kubasov was given the Order of Lenin and so was Dolotov, but Kovalev wasn't. Our brigade worked like hell but the others beat us.

When I was a building worker, I had hardly any jobs to do outside of working hours, but when I came to work in the shop I was at once given jobs on the co-operative society and the trade union. This year I've been elected secretary of the link nucleus of the Komsomol in the forge shop. Lately I've been conducting meetings on the decisions of the district committee and Factory committee of the Komsomol, on labour discipline and on non-fulfilment of production plans in the Plant. When the Red October Plant didn't give us the metal we needed, we got in touch with the Komsomols there and had it put right.

At present the biggest task I'm faced with is to put our Komsomol nucleus on its feet at all costs. At the district conference of the Komsomol they decided that the challenge banner was to be awarded to one of the Komsomol nuclei when we had turned out 150

tractors. This challenge banner is kept in the hands of the factory committee of the Komsomol and they award it to the Komsomol nucleus that does the best work—introduces cost accounting, concludes socialist agreements with others and so on. I very much want our Komsomol nucleus to get that banner.

I reckon these years at Stalingrad have been the best in my life. In the country, I should have remained a tractor-driver. Maybe I'd have been promoted to brigadier, but only after a long time. While here, in a couple of years, I've advanced way beyond anything I could have hoped for before. You learn much more here by mixing with people and what's more, I'm now studying at the Party School. During these two years here I've developed more than I did the whole time I was living in the country.

When we first came to the Plant, we were put in a barrack—twenty persons to one room. It was quite empty—the house had only just been finished and the putty was still wet in the windows. We took a corner of the room for ourselves and piled our baggage in a heap on the floor. Then we went off to look for beds. We went to the Living Quarters' Department. They gave us slips for beds, mattresses, blankets and sheets and we went off to the warehouse, where they handed out the stuff. We got plank beds, and straw to stuff the mattresses with.

The underclothes I'd brought with me being soiled, I hung them up outside, and they got stolen, leaving me only the one suit of underclothes I was wearing when I came. I was sorry to see my own clothes so dirty when the bed linen here was all new and clean. But how could I buy clothes? I wasn't earning anything yet, they'd already advanced us all thirty-five rubles and besides that I was in debt to some of the others whom I had to pay back. So there was no buying anything that month. I had to rough it at first. Later on they advanced me twenty-nine rubles and I bought two shirts and a pair of pants. From then on I gradually began to buy more and more.

Then they gave me and my friend a room to ourselves—that was just at the time when I started work in the Plant. At that time, I

remember, I bought another pair of pants, a shirt and a pair of shoes. I was beginning to accumulate quite a heap of stuff.

When I was working as a builder I earned seventy rubles a month and the month I was studying at the Factory School I was given a scholarship of forty-eight rubles. But when I started in at the Plant I got one hundred and two rubles for the first two weeks' work, which was more than I'd earned before. I bought some soap and a pillow and a toothbrush and toothpowder. On the farm I never used to clean my teeth, but when I came here I saw how everyone came out with toothbrushes in the morning and I became ambitious to get a toothbrush myself. I bought a towel too.

Next pay-day I went right off and bought myself a suit—the first suit I'd ever worn—a black cloth suit, a real good one. I'd never worn a tie before either, in fact I'd always looked down on ties. It seemed terribly funny the first time I put it on, but after a bit I got accustomed to the look of it. I bought one more shirt, I bought a winter-coat, I bought two ties and wore them each a couple of times. All the same I'm not used to wearing them yet. No one wears a tie in the villages and here, I see, they all do. Everyone I look at is wearing a tie. Well, I've made a start anyway.

As I said before, I'm studying at the Party School and I enjoy studying very much. When I get my wages, books is one of the very first things I want to buy. I've bought three volumes of Lenin—I paid two rubles twenty for them. Then Bubnov's history of the Party—that cost me one ruble sixty-five kopeks, and the cover twenty kopeks—though we're now using Popov's history of the Party more than that. Then I bought a book on the Russian language and some books on mathematics, so I could learn about fractions, and some fiction as well, costing maybe twenty or thirty kopeks apiece.

When I moved out of the barracks into my room, I gave it a good sweep and clean up and then went off to the bazaar to do some shopping. I bought a clock, two chairs, an iron stove, a pail, two cups, two glasses, two saucers and a looking-glass that cost me a ruble. This spring I spent three rubles on portraits of Lenin, Stalin

and Litvinov and pictures of “Armoured Cruiser Potemkin” and “The Shooting of the Baku Commissars.”

This year I’m getting ready for service in the Red Army. If they don’t take me, I’m going to overhaul my room, put it in order, give it a clean-up, paint the bed, and get a new blanket and sheets so as to make it cleaner. I want to have a bedside table and a special table with drawers—a writing desk. I thought of getting an accordion at one time—when I went on vacation I received 275 rubles and I could have got one then but I went off on vacation and spent the money that way.

I must be sure to get a radio set—they’re selling them in town—and I want a washstand with a tap and running water. And a watch. When you’re on the job, you have to be looking at the time every minute. In the village we had no need of watches.

I’m now earning upwards of three hundred rubles a month. Last month I got three hundred and five and the month before three hundred and fifteen.

I’m terribly anxious to study—never happy unless I’m learning something. If they take me for the Red Army, I’m going to study at all costs. And if I stay here, I’m going to finish the second term at the Communist University. I want to finish studying so I can write for the papers. That’s what I like most of all. I wrote to our factory paper when I was brigadier in the forge shop and they published three or four short articles by me. At present I’m taking the second term at the Communist University. It’s hard work—philosophy, dialectical materialism and so on. Maybe it would have been better if I’d spent another year on the first course. But what the hell! I’m out to raise my political knowledge as high as possible.

In June this year we went off to attend the third district conference of the Komsomol. It was the first time in my life I’d even been on a steamer. The Volga steamer we sailed on, the *Koltsov*, is a fine boat—soft spring beds, mirrors, everything you could wish for. Up on deck it was warm and sunny. We had a swell time. They gave us a separate cabin with one other comrade. We got to Saratov next day late in the evening and spent the night on board. Next morning,

as soon as the sun was up, I wanted to go ashore and see round the town of Saratov. The word went round that they were sending an automobile to fetch us, as delegates to the conference, but we sent the car back and went on foot.

I went on foot too as I wanted to see the town. We took a look around and then went to the district committee of the Komsomol, where they gave us our credentials and everything else we needed. They took us to the “Astoria,” a big building where rooms were reserved for us. After the conference was over we went back again.

I missed the Plant more than I did my home. When we sighted the Plant on the voyage back from Saratov, I was almost ready to jump off, only the steamer doesn’t stop there, she stops further on.

**“Look at The Conveyor,
Honey!”**



**FRANK HONEY, Tool-
Maker; American Specialist**

I am from the town of Erie in the state of Pennsylvania. My father worked as a machinist on steam boilers in the American Sand and Gravel Company. When I was eight years old, I was sent from a private kindergarten to an elementary school and from there, at the age of fourteen, I went to a secondary school. I did not complete my studies there, however, for at that time America was visited by one of its periodic crises and my father—not for the first time—was left without work. During the holidays, I had to help my family all I could and after the holidays, as the crisis still continued, I didn’t go back to school.

My first place of work was at a factory producing fittings and other parts of pipes and employing not less than one thousand children between the ages of thirteen and sixteen. It was equipped with the most up-to-date machines mainly automatic ones, but the conditions of work were very hard. We were not permitted to stop work for a single instant during the day and there was only a half-hour interval for lunch—for the whole ten hours of work we were on our feet.

I earned from four to six dollars a week on that job. The boss was not content with exploiting boys like me. There were hundreds of girls from thirteen to sixteen years old working in the same factory. Their working day was the same as ours. The sole difference between the boys and girls was that the latter received even lower wages.

After working at that factory for three months, I left it because I could not stand the conditions of work. I went back to school again and remained there for another year. But the chronic crisis did not permit me to continue my studies. Once again I had to leave school and go to work, and this time I got a job as an apprentice in the Reed Manufacturing Company which produced vises, screw-taps and other tools.

There the conditions of work were not so hard and I was given a chance to learn a trade. The working day was nine hours long and the pay ranged from seven to eight dollars a week. The factory management let us spend two hours a day working on inventions, trying to invent all kinds of appliances to improve the operation of the machines. I need hardly say that they saved quite a bit of money that way and paid us nothing whatever for the inventions.

In all their dealings with the apprentices the foremen, heads of shops, etc., were extremely kind and polite, but their behaviour to the workers who had finished their term of apprenticeship was just the opposite. The management would even arrange concerts for us during the lunch hour. The reason for all this was that we apprentices after a few months training were virtually doing the same work as the skilled workers and receiving very low wages for it. This was naturally an advantage to the management and they took care not to quarrel with us. As for the workers of the factory, they did not receive any such "pampering." No sooner had the term of apprenticeship expired than the conditions of work became markedly worse.

When I entered the factory as an apprentice, I had to sign an agreement binding me to work at the Reed plant for not less than five years after my term of apprenticeship was over. After four years my

apprenticeship was up and I was faced with the prospect of becoming a worker, but at that moment I violated the agreement and ran away from the factory. The management avenged themselves on me by keeping all my papers.

I had to resort to stratagem in order to get my next job. That was with the General Electric Company, where I assured the management that I had come from another part of the country, that all my papers had been stolen on the way, etc.

The General Electric tried to create the impression that they were a very advanced firm and that they took great care of their workers in all respects. They had a special hospital at the factory where I worked, with first-aid stations in the shops. However, the real position of the workers was very little affected by all this. We had to work nine hours a day without any lunch hour, while the level of wages was in sharp contradiction to what we gave the plant. I had to work like a horse turning out tools and parts for machines and I only got twenty-five dollars a week. I stayed with General Electric about a year and was then fired for carrying on agitation against the premium system of payment.

For some time after that I was unemployed. I spoke at meetings and broadened my connections among the workers. On Sundays I often used to join a workers' picnic when a group of workers would go out into the country, taking their food with them, and spend the day discussing questions connected with the labour movement.

With great difficulty I managed to get a job at a plant owned by the Modern Tool Company, but I quit because the management wanted to make me work nine hours on the night shift, to which I refused to agree.

After that I got work with the Burke Electric Company and it was there that I joined the revolutionary organization, the Industrial Workers of the World, which was at that time on the extreme Left wing of the American revolutionary movement. I carried on vigorous agitation to get the workers in my shop to join the I.W.W.

There were only two of us Wobblies in the whole shop. After working for a few hours, we would pretend we had to go across to

another part of the shop on business and so make our way among the other workers, having short talks with them and urging them to chuck the rotten Socialist Party and join the I.W.W. Our agitation was very successful. I remember how in one day we two succeeded in recruiting eight new members for the I.W.W.

Next day I approached one of the workers, had the usual talk with him and urged him to join the I.W.W. He listened to me very sympathetically and then he said: "All right, I agree to join. Only let's go into another room for a minute. There are too many people here and you can understand that I don't want to be seen in your company." Suspecting nothing, I accompanied him into the next room, an empty office, where I was surprised to find two guards waiting for me. They had been called in by the provocateur. They seized me pretty roughly by the arms and marched me out of the factory, saying:

"You may be sure you won't find a job in this town."

Bitter experience showed me that this was no lie on their part. My attempts to find work ended in complete failure. I was blacklisted by the bosses and consequently I couldn't get a job anywhere. Once, it is true, I managed to find some sort of an odd job in a little workshop but within an hour the owner must have discovered his mistake for he threw me out on the street. It was then that I had to drop my real name, Metushevsky, which had become too well known to the bosses, and take the assumed name of Honey. I often had to change my name again after that, in order to get employment.

I took an active part in the strike of the Erie dock workers which was called owing to disagreements on the question of wages and working hours. My job and that of my seven or eight comrades was to get rid of the strike-breakers who had been called in by the Pennsylvania Railroad Company to which the docks belonged.

We managed to do this in a highly original way. One of our comrades, a big husky fellow from Chicago, got in among the strike-breakers, who had their headquarters within the docks area. He succeeded in winning the confidence of the leaders and was given a

berth in the dormitory where the scabs slept. Meanwhile we obtained a large quantity of white powder such as is used by the housewives of Erie for cleaning door handles, baths, etc. This powder had the effect of irritating the skin, without, however, causing serious pain or inflicting any mutilation.

While the scabs were sleeping in their dormitory, our friend from Chicago contrived to sprinkle their hands and faces with this powder. Next morning they broke out in blisters and pimples all over their bodies.

Another of our comrades was considerate enough to warn the Erie health department of this "incomprehensible" occurrence. The doctors there got interested in the "mysterious disease" and, in order to protect the health of the local inhabitants, advised the magistrate to lose no time in sending the "sick persons" back where they had come from. And despite the furious resistance offered by the Pennsylvania Railroad Company, the magistrate was obliged to expel the scabs from the town.

However, the ingenious employers found another means of hoaxing the strikers. They arranged for all steamships to use Buffalo as their port of call instead of Erie, and thus within about four weeks' time there was not a single ship lying in the Erie docks. The strikers were in despair for they thought that the Pennsylvania Railroad Company had really decided to transfer its operations to Buffalo. They gave in and resumed work, which was just what the bosses had expected.

I forgot to tell about how I was called up for military service. During the war they sent around forms to be filled in, the last point being as follows: Have you any objections to taking part in the war? I wrote: Yes, because I am opposed on principle to fratricide. After that I was informed that I would be called up in the first draft. And sure enough, after a very brief interval of time, I was told to appear at the recruiting station. At the station, I declared that I was not going to fight voluntarily and would sooner go to prison than to the front. Evidently unwilling to have any further trouble with me, they declared me unfit for military service and let me go scot free.

In 1919 I carried on an active struggle against the war of intervention in Soviet Russia. I vividly remember one of the meetings of the union to which I belonged—the International Machinist Association, Lodge No. 101. At this meeting I distributed pamphlets by Lenin and anti-interventionist literature. Then I came out with a big speech, in which I repeated all the arguments which I had derived from revolutionary books, against intervention in general and the sending of American troops to the Archangel front in particular. I proposed that we pass a resolution of protest against the actions of the capitalist governments in this matter, and despite the furious opposition of the trade union bureaucrats, my proposal was adopted by an overwhelming majority and I was elected chairman of a special committee to draw up three resolutions of protest—one to be sent to President Wilson, one to Congress and one to the governor of the state of Pennsylvania.

I joined the Communist Party of America soon after its formation and under its influence I outlived the tendencies which I had retained from the anarchist I.W.W. I could only get work now and then since the agitation which I carried on prevented me from holding any job for long. I was dogged by detectives. Finally, giving up all hope of finding employment in Erie, I was obliged to transfer to Detroit, where I was not known as yet. This was in 1921.

Detroit was enjoying a boom in the automobile industry at that time and it was comparatively easy to find work there. I at once got an offer of a job in the Dodge Auto Plant.

The Party was illegal in those days and it took me some time before I could establish connections with Party comrades.

Fearing that news about me and my “suspicious character” might have already been sent from Erie to Detroit, I decided to work under an assumed name. However, no sooner had I started work than the factory management wanted to know where I had worked in Erie. I gave them the required information (not mentioning, of course, that I had been working there under another name) and set to work, expecting to be called to account before many days had passed. Which, of course, was just what happened.

Within a fortnight I was sent for, and the following dialogue took place between me and the head of the department.

“What’s this, Honey? Did you really come here from Erie?”

“Yes, sir.”

“And did you really work with the Modern Tool Company?”

“Yes.”

“And the General Electric?”

“Absolutely.”

“Well, why aren’t you registered in their books?”

And the head of the department showed me an official letter received by him from the management of the General Electric, saying that for the last few years no worker by the name of Honey had been registered.

“Is that worth discussing?” I said. “It’s not such an urgent question now. I’ve been working with you for two weeks and money is due to me. I guess it’s time for me to quit.”

I quit this inhospitable factory and went to work with the Peerless Pattern Company where I managed to hold my job for about eight months. I was shop organizer on trade union questions, which of course did not help to create friendly relations between me and the management. I demanded that we be provided with drinking water in the shop and called on the workers to refuse to do overtime work. Finally the management decided to get rid of me.

During the ensuing years I couldn’t contrive to hold any job for long. After a month or two the management would get wind of who I was and request me to vacate the premises. One time I was working as a compositor in the Party printshop and I asked leave to go to Soviet Russia. However, the Communist Party of America did not give permission to its active members to go to the Soviet Union.

Then I decided to learn a useful trade so that I could apply my knowledge and abilities when I got to the U.S.S.R. I went to work in the spring shop of Baren, Gibson and Raymon’s factory and began to learn the technique of the production of springs. At that time, too, I gave up Party work to some extent as otherwise I would have been

fired. But never for a minute did I sever my connection with the Party.

In 1927, when I had fully mastered the technique of spring production and was aware that the factory needed me badly, I deemed it possible to begin Party work again among my comrades. I got the tool-makers to refuse to work after lunch on Saturdays, thereby bringing down upon myself the wrath of the employers. However, by that time I was almost indispensable to them, and they did not dare fire me.

In March 1930, I saw an announcement in one of the Detroit newspapers notifying skilled American workers that Soviet representatives were taking on workers for the Stalingrad Tractor Plant. I went straight to the address indicated. In the office I found a whole crowd of people who wanted to go to the U.S.S.R. The American Berghof gave me a short examination and the Soviet engineer Melamed asked me a number of questions. I signed a contract and left New York on April 29, 1930.

My first impressions of Stalingrad were none too favourable. It was a windy day when we arrived on the Volga steamer. We were met by motor trucks at the landing stage and taken off to the Plant, where we arrived dusty and dirty. Most of the houses were still under construction. There was no sign of green grass or trees anywhere.

“Goddam the place, it’s a regular desert!” I thought to myself involuntarily.*

We were met at the workers’ settlement where we were destined to live and I was shown to my room. I liked the room all right, but apart from a bed there was nothing in it—no mattress, no chair, no table (incidentally I did not receive a pillow until months later). I had to live several weeks like this, without even a mattress to my bed, and of course this reacted very badly on my state of mind. A special dining room was being built for us but it was not yet finished. The food was not bad but it was very different from what we had been accustomed to at home—for example, there were no berries and no fresh vegetables.

For the first three days of my stay my efforts to start work were in vain. In answer to all my attempts I received one stereotyped reply: "You'd much better take a week's rest." This piece of advice made a very bad impression on me.

"What's the idea?" I said. "You pay people big money and invite them here from abroad, and then all you can do is advise them to take a week's rest!"

"But your spring department is not opened yet," they answered.

"Well, what of it? I can work in the tool shop for the time being, can't I?"

I got my own way at last and started work in the tool shop. But to my surprise I was not put to work as a toolmaker. It seemed that owing to the lack of certain machines in the machine assembly shop many of the parts had to be handled in the tool shop and I, too, was given this primitive and highly unproductive sort of work to do.

After a couple of months I was heartily sick of it and went off to the machine assembly shop in search of my spring department.

It was typical of the disorder that reigned in the Plant in those days that when I quit the tool shop I said nothing to anyone about my going and evidently nobody noticed my absence.

The state of things in the machine assembly shop merited still greater astonishment. I approached one of the assistant chiefs of the shop—I've already forgotten his name—and asked him:

"Have the coiling machines for the spring department arrived yet?"

"No," he answered.

Seeing some machines that looked suspiciously familiar to me, I made my way in their direction.

"What machines are those?" I asked, turning to the foreman.

"I've no idea," he replied.

I went closer. I looked hard. There could be no doubt about it—these were my coiling machines!

"How long have they been here?"

"Oh, about a month and a half."

This roused my indignation. A month and a half they'd been standing here and all the time I'd been turning out tractor parts in the tool shop! It was disgraceful!

I went right off to the head of the shop, Comrade Trusov, and informed him that my machines had come and I intended to set about organizing the spring department. Comrade Trusov supplied me with unskilled labourers out of whom I had to make skilled spring-makers.

The first worker who was sent to me was a young fellow named Sinelnikov, a typical peasant. I remember what a laughable impression he made on me at first, dressed as he was in some strange, countrified sort of clothes with such comical shoes on his feet.

You could see at once that his arms, his body, every one of his movements was ill-adapted to factory work. What would have taken a skilled worker a few minutes to do, took him at least half an hour. Besides that I had the impression that he didn't clearly understand my instructions, which were transmitted to him through the interpreter.

I called to my aid the Russian words with which I was already acquainted (for from the very beginning I had attended the Russian class regularly and began addressing him in Russian—"khorosho—nye khorosho" * and so on. And strangely enough, my broken Russian was of more avail than all the long speeches translated to him by the interpreter. After a couple of months I found myself saying "khorosho" to Sinelnikov more frequently than I had occasion to say "nye khorosho."

Well, that fellow is now foreman of the spring department. He is zealously attending evening technical classes and in the near future he will certainly be a technician, while later on he may even become an engineer. His outward appearance has changed too. From a

* "Good . . . not good."—Ed.

hulking clumsy fellow he has turned into a rapid quick-witted worker.

Most of the workers with whom I had to do were in the same boat as Sinelnikov in that they had never in their lives seen machines at all, not to mention such complex machines as the ones we had to operate. I had to spend no little time acquainting them with the rudiments of technique and with the difficulties which even a skilled worker has to face in the production of, let us say, a spiral spring. Still we made headway. They were eager to learn. The socialist competition and shock-brigade work that were developed in our shop did a lot to help us. Everyone was willing to work.

In April 1931 I went to America to bring over my family. I was at once struck by the tremendous change for the worse in the economic state of the country—a change which had taken place during my absence. There were long lines of people standing and waiting their turn at the soup kitchens. Thousands of tenants were being evicted from their rooms for non-payment of rent. Most of the factory chimneys were smokeless. The demonstrations organized by the Communist Party met with a tremendous response among the workers of Detroit, whereas only a few weeks before my departure from there in 1930 the C.P. of America had only a few adherents there.

I had occasion to take part in several demonstrations and to attend many open-air meetings. I also spoke at closed meetings and conferences organized in Detroit by the Communist Party. What struck me especially at all the meetings was the growing interest in everything that concerned the Soviet Union.

“How are things going now?” I wondered as I returned to Stalingrad. I had left the Plant at the moment when things were looking very black indeed—just before the visit of Comrade Orjonikidze and the articles in *Pravda*.

The boys in my shop were glad to see me again and overwhelmed me with questions.

“Well, Honey, what sort of a trip did you have? And how’s your America these days—gone to pieces entirely?”

One brief glance at the department was enough to satisfy me that it was going full blast. The boys were giving the conveyor its full quota of springs. True, they were still faced with some problems which they could not tackle with full self-confidence and without outside help. They were not yet up to the level of fully trained American spring-makers. They still needed a bit more teaching, but the hardest lessons were already behind them.

I took a look around the shop. The picture had changed altogether. The conveyor was moving steadily, smoothly, not moving for one minute and then standing still for a quarter of an hour, as used to be the case. And the workers from my department, who came running after me, assured me of this fact as though I couldn't see it for myself.

“Look, Honey, it's moving!”

On May First 1932, when the Plant had mastered and exceeded its planned capacity, a number of its workers were awarded the Order of Lenin. This honour fell to my lot also. I am proud of the fact that I, a foreign worker, should have received the highest award in the Land of the Soviets. Formerly, it seemed to me as though no one took any notice of my efforts. “To hell with it!” I thought. “This shop's in a state of chaos!” Evidently, however, someone must have seen that I wasn't wasting my time.

We Strode Two Hundred Years Ahead



K. E. TREGUBENKOV, Former Secretary of the Party Committee, Now Manager of the Plant

I am a smith by trade, and my father and grandfather were smiths before me. Grandfather had two sons besides my father and they were smiths too. Uncle Evsey had five sons and all of them were smiths. There are many Tregubenkovers in Siberia and as a rule they are all smiths.

At the age of twelve I got employment in the office of the Abakan factory, running errands and doing odd jobs. From six o'clock in the morning I cut wood, stoked the furnace, and ran errands all over the factory. My wages were three rubles a month.

Technically, the Abakan factory was the most primitive you can imagine. The fuel used to heat the puddling furnaces was wood. The wooden logs were first laid out to dry on the mountain side; then, when they were dry, they were rolled down a wooden skidway to the

furnaces, the friction being so great that they sometimes caught fire. They had special wood-cutters standing by the furnaces who chopped up the logs into small billets while the fireman shovelled these billets into the mouth of the furnace.

When the pig-iron began to smelt, they closed the heavy furnace-door and began to “stir” the hot iron with long iron crowbars. They poked these bars through an opening in the furnace-door and it was through this same opening that the clinkers were raked out under the workers’ feet. The workers wore wooden lasts strapped on to their leather or felt boots. Some workers used to go to and from their work wearing these lasts strapped to their boots all the time, and in the quiet of night and at dawn the clatter of these wooden lasts on the road could be heard a long way off.

With his crowbar the apprentice would “stir up” the metal and “loosen” several lumps. Then the workers, leaning with all their weight on the furnace-door, gradually forced it up. The apprentice lowered a huge pair of tongs into the furnace, caught hold of the lumps of hot metal and heaved them out one by one. The face of the apprentice was generally so scorched that it was repulsive to look at. While groping with his tongs in the furnace, the apprentice would have to turn his face away to avoid the scorching heat.

It was my ambition to get into the mechanical repair shop, but they wouldn’t take me. At last I started work in the forge where they were paying as much as fifty kopeks a day. The forge shop was a ramshackle erection of wooden planks and in winter the wind would go whistling through it, freezing you to the bone; we used to creep into the raked-out furnaces in order to get warm. All the same the forge was reckoned a good shop at that time. It came in for especial admiration from everybody when a lathe was installed for the cutting of hexahedral screws. Formerly these screws had been cut by hand and only a few dozen of them could be turned out a day, whereas the new lathe in one day could turn out hundreds of them.

But the factory was constantly having to stop work. It was being throttled by the competition of its rivals—the plants of the Urals. It was very expensive getting the wood to the factory and carrying the

pig iron away. As there was no railway, the iron had to be shipped down the little river to Krasnoyarsk and the boats would often run aground on the sandbanks and sink. Soon after I started work at the factory they began cutting down the staff of workers.

My father and I went off to work on the Julia Copper Mine. There the copper ore was packed into the furnace together with the wood, just as was done with the iron ore at the Abakan factory, and then the wood was lighted. The furnaces gave out a terrible suffocating stench of sulphur, which made you choke and even prevented the growth of trees on the leeward side of the furnaces where a whole stretch of hillside lay blasted as if by a blight.

In the furnaces at the Julia Mine the draught was produced by an ordinary pair of leather bellows. The smith would give the order: "Now then, Vanya, give her a blow!" And his mate, taking the bellows in his two hands, would blow his best. Almost every day, together with the ore that was brought up from the Julia Mine, would come the bodies of workers who had been killed. The little workers' settlement at the mine had three graveyards all to itself.

Father and I lived in one of the barracks. Each barrack was provided with big plank beds, stretched out in four rows, on each of which slept fifteen persons, married and single alike. We were lucky, for father found us a place not far from the window. At night the barracks were lit by dim oil lamps. The people sat around on the plank beds, playing cards and drinking themselves tipsy. Now and again there was murder.

Father used to have a St. Petersburg newspaper sent us for me to read. It was full of patriotic phrases about "the fatherland" and so on, which he liked very much. On off-days I seldom went out anywhere but used to sit at home with father. The old man would invariably fish out some book or other and then squat down and listen while I read to him till he fell asleep.

In the autumn of 1916 we were living at Krasnoyarsk in private quarters; we shared a room with other workers—smiths, stokers, firemen and so on. As for me, I was working as a smith's mate in the

shipyards. I was a pretty strong young chap by then. The smith often used to say to me:

“I’m half afraid to stand close to you, Kuzma. Your hammer fairly whistles.”

Our hammers had long hafts and when you swung them they really did whistle through the air.

The smith I worked with was a drunkard. His face was all covered with pimples and they swelled up especially when he’d been boozing. He often used to say:

“Tregubenkov, I want you to cut them off.”

“All right,” I said, reaching for the knife.

“No, wait a bit,” he would say, taking fright. “The doctors cut them off once and it didn’t do any good.”

He would often leave me to do his work for him and go off to booze. Then one time he disappeared altogether and the machinist told me:

“You do his job for the present, Tregubenkov, and tomorrow we’ll get in a couple of smiths from the railroad.”

This was rather a blow to my pride. Can’t they trust me with the job, I thought.

Next day a new smith came. They gave him a particularly delicate job—making a new iron fluke for a ship’s anchor. They gave him two mates to work with and they set to work. Two days passed during which they all sweated away trying to make that fluke, but it was no good—they just couldn’t do it. Then the machinist came to me.

“They’re no good, Tregubenkov. You have a try yourself.”

Before beginning to make a new fluke I had a good look at the old one that was broken to see if it couldn’t be mended. I decided that it would be possible to weld it afresh. Slowly, carefully, with great circumspection I set about the task and soon I had got it in hand. The machinist came around and seeing my work, he brightened up at once, saying:

“You’re the only one that’s able to fix it properly.”

I fixed that fluke so well that she probably holds to this day. From this on I began to have a reputation as a smith.

I did all I could to avoid being called up for military service, but in the autumn of 1917 I had to go to the front. From Krasnoyarsk I was sent across the whole of Russia by troop-train and finally landed



Our Hammers Had Long Hafts

up in Minsk. And I couldn't even shoot and didn't know how to load a rifle. I somehow got the idea that the soldiers put in the bullets from underneath and decided that was the way to do it. When they told me this was wrong, I thought they were making fun of me and was deeply offended.

I had not been at the front long when we were told we had to send a party for two hours to patrol the ground between our trenches and those of the Germans. As usual, there was an argument as to who should go. We argued and argued and at last the new recruits were roped in for the job. Owing to our inexperience we went all in disorder and made a lot of noise on the way. The Germans opened machine-gun fire and the platoon commander who was with us shouted out:

“Lie down and crawl into that shell-hole!”

I was in an awful fright and so was my comrade. Instead of dragging his rifle with the bayonet foremost, he was dragging it with the bayonet behind. I was crawling after him and I ran my face into his bayonet and ripped open my cheek. The platoon commander, seeing the blood on my face, ordered me to go back at once to the dressing station. I was delighted, thinking I would get home again.

At the dressing station I found the doctors sitting around and playing cards. They saw me with the blood dripping all over my moustaches—I had big moustaches in those days, just like the Kaiser. They asked me:

“Are you a German?”

I burst out laughing at that. They bandaged me and laid me down on a cold plank bed. Next to me was a bad case—a fellow severely wounded, almost dying. The doctors sat down again to their game of cards.

Next morning they sent us off in a cart to the divisional field hospital, where I lay for about a week. To my horror the wound quickly began to heal. Every day the head of the hospital would come round and ask me:

“Well, how's the wound?”

I would make a wry face.

"It hurts terribly. I can't eat."

As a matter of fact I was always wanting more.

"Well, what are we to do with you?" said he. "We'll have to send you to another hospital, I suppose, but there's nothing to send you in. Can you walk, do you think?"

"I'll try," I answered weakly.

From the Minsk hospital I was sent to Moscow. They hung a label round my neck with "Evacuated" written on it, and put me in an ambulance train. It seemed as if my wound healed up on the way.

At Moscow the doctor asked me:

"What's the matter with you?"

I pointed to my face.

"Rubbish, that's nothing! Here, nurse, paint it with iodine!"

Well, I thought to myself, if it's only a case for iodine, it must be all up with me! So at the next inspection I went up to the doctor and spun him a yarn about how much blood I had lost and how my head swam round when I tried to walk. The doctor gave me two month's leave, so I went back to Minussinsk to join my father.

We went as hired labourers to cut wood on a new settlement.

That was in the autumn of 1917. Our village chose me as a delegate to the District Peasant Congress, convened by the Socialist-Revolutionaries. Ever since I had been at the front my sympathies had been with the Bolsheviks. For me the slogan "Down with the war" was an echo of my innermost feelings. Even when I was being sent to the front, I saw the poverty of the western regions through which the train took me, I saw the women labouring at tasks beyond their strength, and I kept asking myself: "Who benefits by the war?" The Peasant Congress voted in favour of the Soviets, but when the question of nationalizing the land came up for discussion there was a split. The kulaks were against nationalization and the Socialist-Revolutionaries proposed that the question be left undecided until the Constituent Assembly met. This was the occasion for my first political speech.

I suddenly came out with a resolution, the gist of which was that we ought to nationalize everything, without waiting for the

Constituent Assembly. God only knows how I managed to draw up that resolution, but it was passed unanimously. The Bolsheviks were grateful to me for that resolution. I attribute its success to the fact that it was not the official Party representative who proposed it to the peasants but one of “their own folk” just back from the front. There I was in my fur cap and grey army coat looking one hundred per cent the wounded soldier returned from the war. So I was elected a member of the Minussinsk District Executive Committee and though I was not a member of the Party, the Bolsheviks put me forward as one of their candidates. I was appointed chairman of the Executive Committee.

I can't say that I was politically developed at that time. But I learned a lot from the leader of the local Bolsheviks, Plotnikov, who was then working as secretary of the Executive Committee. He was a builder and technician by trade; now he has just completed his studies at the Institute of Civil Engineers in Moscow. At one time he had been a Menshevik, but later on, after five years' penal servitude in Siberia during which he was kept in chains all the time, he went over to the Bolsheviks. He was a very well-read, thoughtful fellow who had a tactful way of approaching people; while working as secretary, he saw that the leadership of the Party was realized in the Executive Committee. For a long time after that, when I had to decide some question or other, I would remember Plotnikov and think to myself: What would he have done in my place? He became a sort of model to me. Sometimes, perhaps, he didn't show quite enough push, as was to be expected in an intellectual type of man, and here I used to help him out. We had to deal with all kinds of cases in those days. Maybe a speculator had been caught swindling, or a cartload of flour had been stolen, or someone wanted a divorce—it would all be brought up before the Soviet.

Then a rebellion against the Soviet power broke out among the Cossacks of the Yenissei. And all we had in our district was one hundred and eighty wretched Italian rifles and no cartridges. We had no field guns and no machine guns. The garrison was not reliable, so we disbanded it. A revolutionary war staff was formed and I was

appointed chairman of this staff. The workers from the neighbouring mines and from the station of Abakan were mobilized and workers' detachments began to drill in Minussinsk. There weren't enough rifles to go round, so one group would march about for a bit and then hand over the rifles to another group of workers who would begin drilling in their turn. They sent us some "jam-jar" bombs from Krasnoyarsk but they weren't much use—the fragments only inflicted a few scratches when the bombs went off.

And the rebellion went on spreading. One time, I remember, an old woman came to us and said:

"There's a suspicious-looking fellow just come to my place—he's taking a bath in the bath-house at this moment."

We went right off to the bath-house there and then arrested him. He turned out to be one of the ringleaders, who was carrying messages and proclamations to the peasantry of Minussinsk. We convened the Peasant Congress, resolved that the Cossacks be disarmed and placed as many Red Army men as were needed for this purpose at the disposal of the Minussinsk Soviet. Whole villages came over to our side with banners and rifles; and they sent us a field gun and two machine guns from Krasnoyarsk. This encouraged us and we set out to meet the rebels.

When we got as far as the village of Bei, our detachments refused to advance further. I picked out two detachments of workers whom I could be sure of, and we were joined by one more detachment from Bystra—my father's native village. So we continued our advance, everywhere dissolving the old rural authorities which had not surrendered power to the Executive Committee. We would always post sentries when we halted in the villages for the night.

Once I was awakened in the middle of the night:

"Comrade Tregubenkov, get up! The Cossacks have come!"

They must be attacking, I thought.

"What Cossacks?" I asked as I hurried out.

It turned out to be a delegation. They declared:

“We’ve come to have a talk with the Red Army boys. What’s the use of our fighting and shedding each other’s blood in vain?”

“If you don’t want to fight,” I answered, “we can discuss the question, but we’re not going to let you go and talk to our men behind our backs. Go and have a drink of tea and then we’ll discuss things.”

We drew up our terms—the Cossacks must hand over their arms and arrest their officers, otherwise we would open artillery fire on them. When presenting these terms to the delegation, I improved the occasion by calling a little roll-call of my “commanders”:

“Commander of the artillery! Commander of the transport! Commander of the cavalry reconnaissance!”

The Cossacks gaped at me in amazement. How does he come to have all these different detachments, they were thinking. This piece of pantomime made a powerful impression on them. After they had returned, their troops began to desert. Only the older ones wanted to fight. The young men sent us a second and a third delegation and then began to disband of their own accord. The officers shaved off their forelocks and went to hide in the villages. We collected all the rifles and machine-guns from the rebels and hunted down the officers.

Soon after this the Czechoslovaks made their advance. One after another the Siberian towns fell into the hands of the Whites. This impelled me to apply for membership of the Party and I was accepted unanimously. A month later the Soviet power fell in Minussinsk and together with many other comrades I was put in prison.

Plotnikov was in jail with us. The very first day of our confinement he said to me:

“Well, now’s your chance to study political economy.”

I was in prison one year and three months during which time I studied political economy and German. Then, as the Whites evacuated towards the Far East, they took me off with them and I was confined in one concentration camp after another. There I caught typhus. The conditions in the camps were awful. Although we were ill, we had to fetch wood and water for ourselves. We buried many

fine Bolsheviks in those camps, ourselves bearing out the naked corpses of our comrades on stretchers.

I had to get about on crutches after the typhus and it was with my head all swollen with the after-effects that I at length rejoined the Reds in 1920. I was sent to a medical commission for examination. I was afraid they would declare me altogether unfit for work, but I had better luck. I wanted to work as a smith. However, it so happened that I met an old comrade of mine in the railway car of Comrade Postyshev who was then commissar of the Amur front; this comrade told Postyshev about me and I was immediately appointed secretary of the Party organization near the front and started work in that same railway car.

In 1921 I was elected delegate to the Tenth Party Congress and went off to Moscow. We had had five sessions of the Congress when news began to come through about the rebellion at Kronstadt. We were awakened in the middle of the night and told it was necessary to choose people to help put down the mutiny. Five men, including myself, were picked to go out of our Far Eastern delegation.

We advanced over the frozen sea to attack the island fortress of Kronstadt. That was something to make your hair stand on end! Just as we began to advance at the double, the whole fortress seemed to burst into flame with the fire of its twelve-inch guns. You could see people's eyes almost starting out of their heads, but there was nowhere to take cover—all round us stretched the bare ice. The rebels were blazing away for all they were worth, but they were too late—they let us get too close before they opened fire, so we beat them. After the defence of Kronstadt a huge heap of shell-cases was left from the three-inch shells that had been fired. The shrapnel burst over the ice like peas out of a pod and cut it up till the whole expanse of ice was literally studded with shell holes, in some of which soldiers' caps could be seen bobbing up and down on the water.

After the mutiny had been quelled, we returned to Moscow and heard Lenin's report on the results of the Party Congress.

The Civil War seemed to be at an end. We in the Far East were busy reorganizing the army, discharging the older men and leaving

the young ones, and I was working as head of the organizing sector in the Army Political Department, when suddenly, in the autumn of 1921, the Merkulov insurrection broke out in Vladivostok.

Merkulov was a Vladivostok merchant, a very energetic fellow and a good orator, at one time president of the Vladivostok government. He took us by surprise, beginning his attack so suddenly that we were unable to evacuate some of our forces. A panic started among our men. I myself had to turn them and lead them back against the enemy. I received a Mauser as a reward for my services in the fight near Vyazemskaya, when I succeeded in repairing a bridge that had been blown up and in salvaging an armoured train manned by some of our youngsters who had lost their heads and shouted "It's the Whites!" when they saw our cavalry coming.

I remember some interesting fighting in the neighbourhood of Yn. The station of Yn was in our hands and a few kilometres away lay the barracks which had already been captured by the Whites. The Whites would ring up our fellows and talk to them over the phone. "We're going to make mincemeat of you today, you worms. Better clear out before it's too late!" They had some strong companies of officers, while we had collected four thousand men, all armed with rifles. However, when the fighting began, many of the fellows we had recruited took fright at the first exchange of shots. It was a shame to see them.

There was one guerilla fighter with us named Petrov-Teterin, a former Cossack officer. He was an impetuous fellow, that Cossack, and used even to shout out cavalry commands to the armoured trains: "Armoured train, advance at the gallop!"

We sent him ahead with his armoured train and he began firing into the officers' companies point blank. Picking out some of our more reliable squadrons, we started rallying the others and collecting our scattered forces. Our infantry detachments began answering the enemy's fire spasmodically, and quite accidentally worked their way into a position from which they had to attack the enemy in the flank. The officers' companies took fright and ran, and those behind them also took to their heels. I subsequently read a White bulletin about

this fight in which they said that the Reds had “an ideal deployment of forces.” I was very amused when I saw that, and read over the phrase several times with great satisfaction.

As they retreated the Whites tore up the railway track. They chained a bent rail down between the rails and the sleepers and attached it to the back of an engine. The engine started off with a tearing din and tore up the rails from the sleepers along its whole course. When they blew up the bridge, big fragments of boiler plate were sent hurtling through the air.

Near Volochayevka we attacked with three regiments, including our guerilla fighters and the Koreans. I had to do some chasing about in that fight! I was riding a splendid horse, an extraordinarily hardy trotter, and thus mounted I rode around inspecting our positions before the fight began. When inspecting the artillery, I noticed that the commissar of artillery was not at his post. They told me he was in the barracks. There I found him, sure enough, and I gave him a piece of my mind:

“Why aren’t you at the front? Get dressed at once under my eyes and go to join your detachment.”

Comrade Blücher * took note of this incident.

He came up and offered me a cigarette—which I accepted, though I didn’t smoke as a matter of fact.

We began our attack towards evening. We had a whippet tank with us; it broke down before it came into action but all the same it made a lot of noise. The boys plucked up courage when they heard the rattle of the tank and advanced more boldly. The Whites met them with machine-gun fire. They had several machine-gun nests in very strong positions protected with piles of snow; they had poured water over the snow and it had frozen hard as iron. They began blazing away at our fellows and it seemed as if all at once the snow was strewn with bodies. Night was falling already. On all sides you

* *Commander of the Red Army in the Far East.—Ed.*

could see dark blotches in the snow—the fallen bodies of our Red Army men.

One of our regiments got so close to the enemy that they could hear the White officers shouting their commands. Then someone cried:

“Look out. Here’s a White armoured train coming!”

A panic started. Our troops began to waver and our scouts, clad in long white robes to render them invisible against the background of snow, withdrew towards the rear. I had to exert all my energy to stop the retreat. The armoured train opened fire and plugged us in the flank, but it was already dark by then so they didn’t do much damage. The battalion commander was wounded under my very eyes. I had him taken to the rear and appointed another commander.

After that I went off to the left flank where the Koreans were. They were shouting and yelling so loud I had to make them keep a bit quieter. But they were under such a tornado of fire, to tell the truth, I never thought I should get to them at all. The fire was so hot that I hardly expected to pull through. I slid down from the saddle and hid under the horse’s belly, making it keep its hindquarters facing the enemy, and I must say that the horse behaved amazingly well under these conditions.

I remember coming to one of our regiments. Not far off the Whites were lying in extended order. You could hear the voice of their officer—a typical captain’s voice of the old school—bawling out:

“Battalion, fire!”

For some reason or other our battalion thought it was a detachment of Reds and shouted:

“Don’t shoot, comrades, it’s us!”

In answer came the captain’s voice, booming out again:

“Battalion, fire at the bastards!”

All this was going on at a temperature of 43 below. The wounded and those suffering from frostbite were taken off into a copse since it was a bit warmer there, under the trees. As for me, my legs were like wood—I had even ceased to feel them.

There was nothing to eat but rye bread. I pulled out a hunk of bread from under my coat, but it was frozen hard and I had to thaw it before I could eat it. When it was warmed up a bit round the edges, I had to nibble off as much as was thawed and put the rest back under my coat. All the others did the same. We had no water and ate snow to quench our thirst. The snow made my tongue and palate all rough and covered them with blisters.

By the end of the day I was so stiff and tired I could neither walk nor ride. I let an orderly lead my horse and laid myself across the saddle on my stomach.

When I got back to the barracks the outcome of that day's fighting was already known. Comrade Blücher came up and shook me by the hand:

“Congratulations. You'll get a medal for this.”

From 1922 to 1930 I held various positions of command in the army. I was commissar of a brigade, commissar of a division, and so on. I studied for one year in Moscow, attending the courses for higher army commanders and after my demobilization in 1930 I attended courses in Marxism and started work on the Moscow Committee of the Party as head of the section for training cadres of new workers. In June 1931 I was sent to the Stalingrad Tractor Plant as secretary of the Party committee there.

Before leaving Moscow for the Stalingrad Tractor Plant I had already had the opportunity to study the reports of various commissions which had visited the Plant and the minutes of speeches made by local workers. But I had only a vague idea as yet of the Plant itself.

In 1925 I had been on excursions to the big Leningrad factories. Scattered and unorganized, they made none too good an impression on me. And now I came to the Stalingrad Tractor Plant. When I saw the automatic machines which stamp the piston rings I could hardly believe my eyes, and yet such a machine is not so wonderful if you compare it with the one that cuts part No. 114. I walked through the huge departments and shops. I saw the conveyors and I thought to myself: What a job it must be to manage a plant like this. It has taken

me twenty-eight years, I thought, to make my way, through war and revolution, from the Abakan factory to the Stalingrad Tractor Plant, but during that time the technique of our country has taken a stride of two to three hundred years ahead.

From my experience in the army I knew that you cannot be a good political commander unless you understand the tactics of war, the business of shooting. And here, in the factory, I reckoned that unless I got a real knowledge of the production process, I would not be able to have any firm opinions on questions that concerned the life of the Plant. To study the process of production—that was the task I set myself above all others, and I demanded the same of all secretaries of Party nuclei in the Plant. Take, for example, the secretary of the Party group in the machine assembly shop—he could not give me an answer to the simplest technical questions relating to his shop! How can the leader of a Party organization give the lead to others and help on the production process if he does not understand this process himself?

We still have one or two Party secretaries who hold that it doesn't quite do to ask questions about anything of a worker, a foreman or an engineer—it might “undermine their authority.” But I tell them: “You'll undermine your authority a lot more, if you don't want to learn things.” That's what I say to everybody, even the biggest men in our Plant.

From the very first day I began to study the Plant, beginning with the foundry shop where the first processes are performed. Quite unashamed I asked, and still ask, the workers and foremen, the engineers, the chief metallurgist, the technical manager about anything in the technological process that is not clear to me. I have started studying scientific subjects, and at the present moment there is a time-table lying on my table with hours allotted on certain days for the study of designing, mathematics, physics. At the age of forty I have suddenly discovered that I have some talent for mathematics.

Once something went wrong with the cutters of the Ingersoll lathes. They would get heated up and the result was a large proportion of spoiled output. I spent whole nights watching the

Ingersolls, trying to make out what was the matter, and at last it dawned upon me that the iron was at fault. The iron that was used to make the cutters was too hard for that purpose.

Then I began to look into the foundry and see how the smelting was done. It turned out that we were smelting the iron for the gear-box, the hub of the back wheel and the piston all out of the same cupola. Whereas the hub, for example, requires one degree of hardness in the metal and the piston another. If you don't thoroughly investigate things for yourself in this way, how can you organize the workers in your factory, how can you mould public opinion in the plant?

When I came to the Plant, the manager Grachev and his assistant on labour questions, Tylochkin, were proclaiming on all sides that the cost accounting system had been put into effect at the Plant, that 98 per cent of the workers were on piece-work rates. This was just after Comrade Stalin's speech in which he propounded his Six Conditions. All the way down to Stalingrad, as I sat in the railway car, I was thinking over that speech of Stalin's.

On the day of my arrival I went to the Party fraction of the engineering and technical staff of the Plant and asked them to tell me frankly how things really stood in this connection. The engineers declared that there was no cost accounting, that not more than 20 per cent of the workers were on piece-rates, that Tylochkin was not speaking the truth—and they said some pretty hard things about him. I told them to carry out an investigation and to collect exact data, recommended them to come to the Party committee more often and tell how the labour power was distributed, where a greater or smaller number of workers was needed. Instead of making the usual speech, I chatted with them in a comradely way.

I made the round of the shops. I went up to one of the lathes and asked the worker:

“Are you doing piece-work?”

“Yes. . . .”

“How much do you get for this job then?”

“I don't know.”

“How do you mean? You’re on piece-rates, aren’t you?”

“Yes, they do say I’m on piece-rates. . . .”

I put the same question to many workers, especially in the machine assembly shop, and in ninety-nine cases out of a hundred I received a similar reply.

To others I put the question:

“How long have you been working at the Plant?”

“Six months.”

“And have you been working long at this machine?”

“Three days.”

“Where did you work before and how long?”

“Well, I was in the assembly shop but I can’t remember how long—about a month and a half—no, less, maybe three weeks. Up till then I was working in the shop where they make the wheels.”

And this was not an isolated case. It was always happening!

I had talks with the foremen and found that they were quite unacquainted with their own men, that they simply did not know who was working in their section. I came across people who had recently come to the Plant without having ever been in a factory before and who were put to work on the machines right away.

The discussion at the meeting of the bureau of the Party committee was a pretty lively one. The manager Grachev came to the meeting with a regular stock of documents, minutes, diagrams, etc. When he was told that there was no piecework, he got excited and answered:

“No piece-work! There’s piece-work for you!” And he pointed to his papers and minutes. Of course, this caused plenty of laughter. Grachev was deeply offended and declared:

“All right, you can do as you like and vote as you like. I wash my hands of it.”

Well, I thought to myself, that’s a nice thing for a factory manager to say!

Very soon it became clear that Grachev was quite incapable of coping with these questions. Watching him at work in his private office, you could see how he would sit there all day and agree with

whatever anybody said. He had no idea of what was going on in the shops. I brought up the question before the regional committee of the Party and paid a visit to Moscow. In the end Grachev was removed from his post.

The technical manager of the Plant was engineer Pudalov. At that time the Plant would put out eighty or ninety tractors one day and the next day not one single tractor would be taken off the conveyor. This got on people's nerves and upset all our plans. One time we did not put out any tractors for two days at a stretch. I went to Pudalov and asked him:

"Will it go on like this?"

"That's just what we've got to decide," he answered. "Tomorrow we may take eighty tractors off the conveyor, but then the day after tomorrow we'll turn out no tractors at all. Personally I think we ought to begin not with eighty tractors but with fifty, and then gradually work up the output at the rate of one tractor more per day."

I heartily supported this proposal of his. Next day—it was July 25, 1931—we took fifty tractors off the conveyor and from this on we advanced steadily, never lowering our output and not going ahead too fast. When Mikhailov, the chairman of the All-Union Automobile and Tractor Corporation and the new manager of the Plant, came down a few days later, he backed up this idea and fought to have it put into effect.

At the same time we decentralized the Party organization, made sure that in every field of work the Party members played a leading part and explained the full meaning of Comrade Stalin's Six Conditions to the workers. Every day a board was hung up at the entrance to the Plant with the figures showing the output of tractors for that day. As the workers went home they could see that from day to day the output was rising. This was of tremendous significance.

Hitherto, many of the workers, after finishing their shift, used to run over to the big conveyor, look at the output figures, and then either dance for joy or do some powerful swearing and go home in despair, as the case might be. Now everyone could see that the output

was rising steadily and evenly. The spirits of the workers began to rise; they were acquiring confidence in themselves and in the management and technical staff as well.

Formerly the “social workers” of the Plant—the members of the Party and trade union organizations—had so frequently infringed on the functions of the business managers that the latter had come to take it almost as a matter of course. At first I had to tell them outright:

“Look here, you can do this on your own initiative.” When the manager sent an important telegram, he would come to consult with me and even send me the telegram to read through—I could almost say, “censor”!

I told him:

“Decide this matter for yourself.”

The telegram may not be quite correct on some points of detail, there might be some minor slips, I thought to myself, but that doesn’t mean that the secretary of the Party committee ought to introduce corrections into it. It’s no good giving the other man the feeling that he can do bad work and “pass the buck” on to you, because the mistake “will get corrected anyway”.

Sometimes the Party secretary from one of the shops would come to me and say:

“I’m thinking of doing so and so. . . .”

“And have you spoken to the head of the shop about it?”

“No.”

“Well then, go along and have a talk with him in the proper way.”

When I am convinced that some measure or other is necessary, I say to the head of the shop:

“If I were in your place I would do so and so.”

But if I am not quite convinced it ought to be done, I say:

“It seems to me you ought to do so and so, but it wouldn’t do any harm to have a talk with Pudalov.”

This does not mean that you don’t sometimes have to apply pressure, perhaps even to the manager. Once, for example, when he

failed to give us money for the building of roads and a school, I spoke so bluntly that he told me:

“You’re pushing things too hard.”

“Well,” I said, “that’s what I was made Party secretary for—to push things.”

We have working with us not a few specialists of the old school, including some who were guilty in the past of serious crimes against the Soviet government. We tried to create a suitable environment for them, in which they could show in actual practice that they had come round to the side of the Soviet government. Those who had formerly been wreckers of Soviet industry were now invited by us to give lectures at technical conferences of the Party members and asked to contribute to our magazine, not to mention the fact that all their initiative in increasing the efficiency of the production process received powerful support from us.

At all meetings we supported their authority. There was not a single case where their orders were not put into effect, and no one ever let fall the least hint or allusion to what they had been in the past. This, however, does not mean that we relaxed our vigilance, that we gave them a free hand to do just as they pleased. We combined confidence with prudence, and prudence with confidence. We contrived to create conditions under which these specialists might help us to get the best out of our Plant.

As regards apartments, food, and everything that concerned their material welfare, we saw to it that they were well provided for; and they, in their turn, seeing that the Party organisation was in real earnest about increasing the efficiency of the Plant, began to work more and to work better. They were infected by the general atmosphere of enthusiasm which prevailed in the Plant. Two of them, for their exemplary organisational leadership, were awarded the Order of Lenin.

We have made great progress at the Plant but still there is one thing we have not learned yet—how to take advantage of every minute, how to work in an organised way and rest in an organised way. It is quite unnecessary to spend as much time in the shops as we

do at present. We have acquired the bad habit of trudging around the shop day and night. I am guilty of this myself. The whole of this summer I have only once found time to go boating on the river.

I once went to the club and, entering the rest room there, I saw two engineers sitting with a contented look on their faces and having a quiet game of chess. It was easy to see that for them, too, this was a rare pastime. One of them said:

“If we could spend just two hours a day like this, it would make a big difference in our work.”

“Well, who’s stopping you?” I answered. “Why don’t you do this instead of wandering around the shops the whole night? What’s the good of sticking in the shop until your head’s all befuddled and you can hardly walk?”

They replied:

“We can’t help it. Those are the conditions we are working under.”

I answered them by recalling a case that had occurred not long before. I went to visit one of the managers in the shop at twelve o’clock at night. There I found him with three other men sitting with him—all highly qualified engineers. The manager was talking to one of them but the conversation had nothing whatever to do with the others, who meanwhile just sat there yawning, dozing, smoking cigarettes. The first engineer went home when the manager had finished his talk with him, and then the manager started talking to the second engineer, while the third one sat waiting.

At last the manager finished with the second engineer and he sat there, plunged in thought, with only one visitor left. Both were tired out, nodding and dozing. I was told they both sat on there in this drowsy state for another hour and a half—they sat until they were tired out, but still they stayed on and wouldn’t go home.

We haven’t yet learned how to employ every minute of our time to the best advantage. We have yet to learn that the practice of going through the shops can sometimes prove actually harmful, especially if you go without any definite aim. This practice creates a feeling among those working in the shops that the responsibility does not

rest on their shoulders. It's all the same—they think to themselves—he'll come around "himself" and decide what's to be done. . . .

At the Plant I came to understand what Comrade Stalin meant when he spoke of "new methods of work, new methods of leadership." If we had not followed his instructions, we would never have got anywhere in our Plant.

In our letter to Comrade Stalin we wrote:

In the very hardest moment in the life of the Plant our technical inefficiency and old methods of work came sharply into collision with American technique. The machinery was producing much less than it ought to have produced. We could not master the technique of conveyor production. The Plant remained obdurate in spite of our good resolutions.

What was the source of our mistakes? We had a burning desire to work well. We had magnificent equipment at our disposal and all the same we were not fulfilling our program. Desire alone proved to be insufficient. We had to supplement it with skill, knowledge of the business, new methods of work.

Our victory is the victory of the whole Party, of the whole working class. If we conquered, it was because we were led by the Leninist Central Committee, by the Supreme Council of National Economy with Comrade Orjonikidze at its head, because we were aided by the workers of the Red Putilov Factory, by the Bolshevik "Pravda," by the All-Union Central Council of Trade Unions and the Central Committee of the Komsomol. We were given active aid by the city and regional committees of the Party.

During the Civil War, Comrade Stalin and Comrade Voroshilov directed the defence of Tsaritsin against the Whites. The severest encounters with the white-guards were fought out on the spot where the Tractor Plant now stands.

Old Tsaritsin is no more. In its place there has sprung up a mighty industrial centre—Stalingrad. And here the Stalingrad

Tractor Plant—the first plant of our Five-Year Plan—has been built and is giving tractors to our country.

Postscript

By Y. ILYIN * and B. GALIN

Taking as his evidence the vast body of material collected by the Hoover Commission, Stuart Chase, a petty-bourgeois liberal writer, demonstrated the “tragedy of waste” that is being enacted in the anarchic system of capitalism in the wealthiest capitalist country of the whole world—the U.S.A.

Stuart Chase’s book appeared at the very height of the period of “prosperity,” 1926. Never before, it would seem, has the squandering of productive forces reached such gigantic dimensions as at the present time. Never before, one would think, has the unproductiveness of the capitalist system stood out so glaringly, so palpably, as it does today. The crisis, which is ruthlessly closing the gates of factories and causing the department stores to put up their shutters, has at length opened the eyes even of these people who are not generally disposed to realize the events which are taking place around them.

The quantity of bankrupt banks and concerns, of ruined manufacturers and of manual and brain workers who cannot find employment is only matched by the vast quantity of valuable goods that are being wantonly destroyed—the plantations that are burned down, the sacks of coffee that are thrown into the sea, the cans of milk that are poured into the rivers, the machines that are scrapped—all representing values which have been created by the labour of mankind.

* *Yakov Ilyin, the brilliant young Soviet writer who died recently, was the chief among a group of writers who, under the direction of the “Pravda,” collected and wrote down the life-stories in this book.—Ed.*

And yet this is only a small part of that gigantic waste of which capitalism is guilty in regard to the very productive force of modern society, in regard to the working class, in regard to all creators of material values. In these days we are no longer surprised to read of engineers selling matches and opening the doors of taxis on the streets of Berlin, of the millions of unemployed in the U.S.A., of bankers blowing out their brains, of the ten-year-old prostitutes, of the reduced output of steel; pig iron, automobiles, tractors and textiles.

The plethora of products standing out in stark contrast to the starvation of millions, the need for machines coupled with the cutting down of production, the development of science on the one hand and on the other the demand for a ten years' "truce" in scientific inventions, the thirty or forty million unemployed and the appeal to youth not to enter higher educational institutions—would it be possible to find more convincing evidence of the tragedy of waste in the productive forces of contemporary society than is provided us by the actual facts of life in capitalist countries?

"Take the most universal, the most permanent aspiration in all ages and of all peoples—the aspiration to well-being, an aspiration that lies deep in the hearts of all sentient beings, a development of the simple instinct of self-preservation, the innate tendency to flee from that which causes pain and to seek that which brings pleasure, the naive desire that things should be better and not worse; well, after thousands of years of labour, humanity has not even attained an animal level of satisfaction; relatively speaking, I hold that the slaves in Russia and those who are perishing of hunger in Ireland suffer more than do any wild beasts or animals."

These words were written on March 1, 1849, by the famous Russian revolutionary writer, Herzen. During the course of the past hundred years the dominant theme of literature and journalism has been that of the tremendous tragedy of waste, of people possessing useful traits and talents, powers and abilities of one kind or another, but who cannot find an application for them or who cannot fully develop in feudal-capitalist or in bourgeois society, founded as it is

on the principles of sacred private property, individualism and competition. In the cases of millions of people, these incipient traits and talents have been stifled in the womb, nipped in the bud, and have never had a chance to mature or bear fruit.

This is the theme of people who have grown greedy, niggardly, mean and depraved not by virtue of their natural biological make-up but as a consequence of the social conditions which have deformed them, by virtue of the habits, standards and traditions of the environment in which they live, the standards and traditions that have grown up on the basis of this or that social and economic order. It is the theme of the life of the majority of mankind as it is lived in a society founded upon private property, of people who sell their muscular power, their brains and bodies, of people who work in order to prolong their existence in some way or other and who live a life of loathing and disgust, not doing that work to which they are attracted and at times having no work at all.

“The people of our age simply horrify me,” wrote Herzen at Zürich on December 21, 1849. “When did these persons squander their lives, when did they find time to lose their powers? In the schools where they were brought up they were turned into dunces; they fooled away their time in beer shops and in student dissipations; they have grown weak from petty dirty debauches; having been born and bred in an infected atmosphere, they have not brought much strength with them and afterwards they have withered without ever having flowered; they are exhausted and worn out not with passions but with passionate dreams. . . . To be a donkey, a toad, a dog is more pleasant, more honourable and more noble than to be a man of the nineteenth century.

“Nobody is to blame. It is not our fault and not theirs. It is the misfortune of being born at a time when the whole world is dying.”

The best writers of all times and peoples—Cervantes, Balzac, Flaubert, Stendhal, Dostoyevsky, Tolstoy, Gorky—have anatomized in their works the society of their day. All these stories of people who are aspiring to something, of people who have something in them which distinguishes them from their environment, of searchers

after truth, dreamers, vagabonds and “minds unhinged,” beginning with the prototype of them all, the masterful figure of the hidalgo Don Quixote down to the merchant’s son Foma Gordeyev in the pages of Gorky—all these constitute so many mighty chapters in one narrative which tells the story of maladjusted humanity under the former social order, a narrative to which scores and hundreds of humanity’s best minds have contributed.

“Well, my life has been lived,” these people seem to say of themselves, “and what sort of a life was it, what is there to remember in it?” They recall perhaps five or six bright pages in the story of their life—childhood, first love, the hopes of youth—and they feel themselves to have been robbed, cheated by society, to have been hurled into some dark abyss from which there is no escape, no return. Why live such a life, why live when you know beforehand that a life has been prepared for you such as your father led and such as is led by all those around you? Who has stolen away their lives, cut down the number of their joys to two or three memories of the past and laid such a heavy burden upon them?

Flaubert’s *Madame Bovary*, Goncharov’s *An Ordinary Story*, Hardy’s *Jude the Obscure*, the works of Maupassant, of Leopardi, of Zola, of Dreiser—the list might be endlessly prolonged by examples taken from the life of any capitalist country. Every street, every village and every house might tell us the story of such ordinary people who never had a chance to develop, whom “capitalism crushed, smothered and trampled upon in thousands,” whom it presented with a third-rate form of existence.

Feodor Dostoyevsky in his books reflected the life of these people more morbidly, more bitterly than any other writer. We get this feeling of colossal loneliness, this sense of an intelligence strangled and disrupted, when we read of Makar Devushkin, of the brothers Karamazov and of Nikolai Stavrogin. They sought for happiness, they sought for a rich and varied existence, sought it above all in their private and family life, since they could not find it in social life; they hyperbolized private experiences and family clashes, regarding this hyperbole as true happiness, and when for

various reasons they failed to find happiness either in public or in private life, they either hotly protested or resigned themselves to their fate, and towards the end of their life, after enduring an immeasurable quantity of nastiness, anguish and tedium, they say in the words of Maupassant: "Well, after all life is not such a bad business."

Capitalism crushed, stifled and made mock of human personality. Everything, the family included, was set at the service of capitalist exploitation.

Communism which emancipates the creative initiative of the broad masses, communism which gives each human being the chance to find his own place in life, to employ his powers in the most productive way, represents a higher social order as compared with capitalism not only because it has done away with exploitation and created planned economy in place of anarchy, but also because it sets free the vast creative potentialities of people who were not able to develop at all in a bourgeois society but who, as our revolution has shown, develop their full powers under a workers' state.

Under capitalist society even the successful cannot be happy since the very process of enriching and looking after themselves so exhausts people that they have no chance to enjoy life. Thus, one of Gorky's characters, the old merchant, Egor Bulychev, says "all his life long he has let real things pass him by."

The literature of former times contains very few examples of people contented with life. The imperialist war and the revolutions which ensued upon it shattered the foundations of the old way of living, the foundations of bourgeois conceptions. The post-war crisis of the capitalist system, when Russia dropped out of the ranks of imperialist nations, the proletarianisation of the petty bourgeoisie—all this caused capitalism to intensify its oppression not only of the proletariat and the peasantry but also of the so-called middle strata of society—the petty-bourgeois intelligentsia.

"Everything is going to the dogs, this system is throttling everyone"—such is the *leit-motif* running through all the latest works of the petty-bourgeois writers who are approaching a revolutionary

standpoint. The most talented and vivid of all these authors, John Dos Passos, showed this in his books *Manhattan Transfer*, *Forty-Second Parallel* and *1919*, while the same note may be detected in Erich Maria Remarque's *All Quiet on the Western Front*.

It follows from this that the best representatives of the revolutionary intelligentsia, the best explorers of the human mind, cannot but see the ruination and decay of present-day capitalist society, cannot but see that it is in the U.S.S.R. alone that human personality has full opportunity to develop.

Bourgeois literature has created extremely few heroes of vivid and fascinating character, people who might serve as a model, a standard, a gauge of the heights to which human nature can rise. And this is because capitalism has not nurtured, has not produced such people. Capitalism has crushed and throttled working class people in thousands, stifling the best shoots of humanity among them, while at the same time fostering the growth of misers and money-grabbers, who, to employ Balzac's expression, burst upon contemporary society like a plague, elbowing their way promptly to positions of private bourgeois property and good fortune. These people together constitute the bourgeoisie.

But here, in this book, we have before us the portraits of workers, foremen, engineers and managers of a factory. Who are they—these men and women who helped to make the Stalingrad Tractor Plant? They are members of that class which is now the rising class, while the bourgeoisie is the declining class—of that class which took its destiny into its own hands in October 1917 and which since that time has been building a new socialist society. We have chosen only one factory and these are only a dozen people from that factory but can we not say that their various life-stories blend together into one whole and that that whole may be expressed in an upward curve of growth, in an upward curve of the development and unfolding of human personality in a society where there is no such shame as the exploitation of man by man?

There is no place for them in the literature of the bourgeoisie. There they are consigned to obscurity, to the backyards and alleys, to

holes and corners. Bourgeois literature possesses neither the strength nor the capacity to show their true face. But they can be portrayed in their full stature in the literature of the victorious proletariat. And our Soviet literature has already set about the great and difficult task of depicting the class of the new masters of life. The present work, *Those Who Built Stalingrad*, has fulfilled a valuable function and occupies a place of honour among the books of our time. It was created in a factory which for a long time held and will still continue to hold a central place in the attention of the entire country. The Stalingrad Tractor Plant was completed and set in operation on June 17, 1930. This, the first factory of our first Five-Year-Plan, was thus opened in a year marked by great changes on all fronts of socialist construction. The country was steering a course towards industrialization, was becoming, to use Comrade Stalin's expression, a country of auto-mobilisation, tractorisation and mechanisation. And in the sequence of our first-class automobile and tractor plants the Stalingrad Plant took first place, opening up as it did a new chapter in the history of our national economy—a chapter of struggle for the mastery of high technique in the conveyor system of mass production. It thus acted as the lodestone of Soviet industry in the difficult way that it had to go towards the mastery of advanced technique. And it was the guide on which Soviet industry relied in passing the test of technical maturity.

That is why it not only occupied the entire centre of the attention of the working masses of our Union but was also honoured by the attention of the whole capitalist world, which quickly grasped that the Stalingrad Tractor Plant at that time constituted the key to the socialist industrialization of the country. The enemies of the Soviets therefore rubbed their hands with malicious glee when they thought that the Plant was going to be a failure; they attentively watched the first and as yet uncertain steps of the Plant when it was mastering the A B C of production. The men of Stalingrad have themselves told about this critical period. They did so in January 1932, in their open letter to Comrade Stalin who, both during the years of construction and during the period when the process of production was being

mastered, devoted exceptional attention to the Plant. The workers of Stalingrad began this letter by recalling the “prophecies” of the bourgeoisie:

“Comrade Stalin!

“Here is what the bourgeois papers were writing about us six months ago. ‘In view of the collapse of the Stalingrad Tractor Plant the Soviet Union will once again have to buy tractors abroad and foreign countries will perhaps refuse to sell them in order to ruin the Soviet Five-Year-Plan!’ (From the magazine *Canadian Farm Implements*.)

“The same thing was written by the social-Fascist *Vorwärts*, by the American magazine *Tractors and Agricultural Machinery* and many other capitalist papers.

“Even foreign experts who were friendly in their attitude to the U.S.S.R. told us: ‘You have built a tremendous factory. There is none like it in America, but you won’t be able to set it going yourselves. Get people from America to start your factory for you!’

“Before us in its full scope arose the task, clearly indicated by the Party and its Central Committee, of using American experience, of ourselves becoming specialists, experts, of ourselves becoming complete masters of the business.’

“We had to master the science and technique of mass conveyor production. We were confronted with first-class machinery, and the task before us was to assimilate during the course of a few months all the experience that America had accumulated in dozens of years.

“The enemies of the Soviet Union strove to exaggerate our mistakes and blunders. And just as, during the years of the Civil War, they had ‘reckoned’ on the day when the Soviet government was going to fall, so now, during the period of our stubborn struggle to set the plant in operation, they indulged in ‘prophecies,’ they wrote that our factory would not produce anything, would not survive more than a week or two.

“Their hopes have been shattered.”

What can we present to the capitalist world in answer to the slanders which it has been launching against the Soviet Union for

years past? The figures, the bare figures showing the work of the Plant during the three years of its existence—from June 17, 1930, to June 17, 1933.

During these three years the Stalingrad Tractor Plant has turned out 66,000 tractors.

At the present time it is putting out 144 tractors a day.

The planned capacity of the plant has thus been fully mastered.

	1930	1931	1932	1933 (five months)
Output of tractors	1,002	18,410	28,772	15,837 *
Production cost per tractor in rubles **	20,856	3,989	3,495	3,003
Earnings per worker in rubles at 1926-27 value ***	318	2,298	2,908	3,586

The Stalingrad Tractor Plant has already given sixty-six thousand tractors to the Soviet countryside and these tractors, in the words of Comrade Stalin, are “shells blowing up the old bourgeois

* In addition to this about 2,000 tractors were turned out by June 17, 1933.

** Figures refer to the third quarter of each year; in 1933, to the month of April.

*** Figures refer to the third quarter of each year; in 1933, to the first quarter.

world and paving the way to the new socialist order in agriculture.” But the work of the Plant cannot be expressed in bare figures alone. During these years the Plant has been training hundreds and thousands of men and women who now feel themselves to be the masters of the country—these same people who make tractors and who are being re-made by the making of tractors.

Who are they, these builders of the Stalingrad Tractor Plant? What sort of people were they when they came to the factory, and how have they changed since then? They are people whose past experience of life has been very different, but they have this much in common, that the life of the Plant which they built and learned to operate has left an indelible impression upon the life of each one of them. The destiny of the Plant is intimately interwoven with that of those who built it. The upward curve of the development of the Plant is reflected in the upward curve in the development and growth of the men and women working in it. In the life-story of Vassily Ivanov, the former manager of the Plant, we find a passage, not very significant at first sight, where he says that immediately after his appointment as head of the construction job he visited the site of the future factory and “from this on my life has been firmly linked up with the life and destiny of the Tractor Plant.” And the same is true of scores of other people who had been in close contact with the life of the Plant. Among the men and women of the Stalingrad Tractor Plant whose life-stories are told in this book, there are people who have passed through the school of class struggle under capitalism and had experience of civil war and again there are some who are so young that, in the words of foreman Sergeyeve, “they never even set eyes on a handcuff.” And the Plant, equipped as it was by American technique, obliged each one of them to study, to change his ways so as to be able to master the high technique of the job. This was a hard and agonizing period.

It was a hard and agonizing period mainly because the Soviet Union had had no experience of work in such highly equipped plants. It was the first plant of its kind in the Soviet Union! Here is what the

workers in Stalingrad wrote to Comrade Stalin in their open letter already referred to above:

“In the very hardest moment in the life of the Plant our technical inefficiency and old methods of work came sharply into collision with American technique. The machinery was producing much less than it ought to have produced. We could not master the technique of conveyor production. The Plant remained obdurate in spite of our good resolutions.

“What was the source of our mistakes? We had a burning desire to work well. We had magnificent equipment at our disposal and yet we were not fulfilling our program. Desire alone proved to be insufficient. We had to supplement it with skill, knowledge of the business, new methods of work.

“In a new plant, under new conditions we continued to work in the old ways. We thought that the only new thing about the Tractor Plant was its equipment, that it was enough to set people at foreign machines and the Plant would work. But the facts showed that without mastering production planning, without training our own staff of leaders, without concrete, business-like and specific leadership, without rigorous financial control, without a determined struggle against wage-levelling and lack of personal responsibility, without daily care for the builders of tractors, we would not get the Plant out of the rut and we would not produce tractors.

“We had to change our methods. And we began to do so on the basis of your instructions.”

This was how the workers, engineers and leaders of the Plant wrote to Comrade Stalin, from whose concrete instructions and assistance the Plant has continually benefited throughout all these years. The story of the Stalingrad Tractor Plant as recounted by its workers reflects the part which Comrade Stalin directly took in its work; with pencil in hand he calculated the planned capacity of the Plant during the days of its construction and took a daily interest in the solution of the mighty problems that confronted it and of the “minor matters” that concerned the life of the Plant. The story of the

Plant would likewise be incomplete without some mention of the way in which Comrade Stalin followed with the most lively interest the reports of the Plant's daily output of tractors, checked up the quality and quantity of radiators sent to the Plant, saw to it that the Plant was provided with a boating station, a cinema for sound films, etc. No outsider unacquainted with all the "ins and outs" of the life of the Plant, could possibly imagine how thoroughly Comrade Stalin looked into all the details which concerned the work of the Stalingrad Tractor Plant and the life of its workers. Everywhere and always the Plant felt the aid which came from the Central Committee of the Communist Party, from Comrade Stalin.

When in April 1931 the *Pravda* published a short article entitled "We Sound the Alarm," referring to the bad state of things at the Plant, and the workers of the Red Putilov Factory in Leningrad sent their famous letter to Stalingrad expressing the general opinion that the Plant should finally begin to work better, Comrade Stalin attentively followed the exchange of letters between the two factories and insisted that a brigade from the *Pravda* should be sent to Stalingrad. During those days and months the eyes of the whole country were riveted upon the Plant; the bulletins published in the *Pravda* giving the daily output of tractors were bulletins from the front where technique was being mastered.

Sergo Orjonikidze, People's Commissar of Heavy Industry of the U.S.S.R., who acquainted himself with the work of the Plant and did so much to smooth its course, gave a correct diagnosis of the ailment from which the Plant was suffering: "What I see here," he said, "is not tempo but fuss." And the workers of Stalingrad, benefiting by his criticism, sought and found the way to the mastery of technique. By fighting against the lack of personal responsibility and against wage-levelling, against "storm" methods and "guerilla" tactics in work, by fighting for efficiency and system in the everyday work and striving to produce their own "industrial and technical intelligentsia," they mastered the technique of tractor production.

"At this time," the workers of Stalingrad wrote in their letter to Comrade Stalin, "your speech at the first All-Union Conference of

Managers of Soviet Industry appeared. This speech defined the main task: 'The Bolsheviks must master technique. It is time for the Bolsheviks themselves to become specialists. During the period of reconstruction technique decides everything.'

"The Six Conditions put forward in your second speech, *New Conditions, New Tasks of Economic Construction*, have taught us how to become masters of our work."

Both the older generation and the younger are represented in this book. But in the case of each one of them there comes a point when their life-story is intersected as it were by the life-story of the Tractor Plant. What sort of people were they, what did they see in life up to the moment when they came to that construction site fourteen kilometres from Stalingrad on the banks of the Volga?

The sailor of the Baltic fleet, the assembler Vassily Ivanov went through the severe school of naval service. He led a wandering life after that, going from factory to factory. Without thinking or reflecting, he went on strike when his comrades did, but to quote his own words: "I did not begin to live a full political life until the revolution." Tregubenkov, the son of a Siberian blacksmith, worked in an old-fashioned primitive forge, associating with people who had drained to the dregs the bitterness and disillusionment of their constricted life. A strong, healthy young fellow, he, in his own words, "didn't know what to do with himself." So he continued to live up to the time of the October Revolution in 1917.

The Proletarian Revolution opened up wide vistas before these men and before all those who helped to build the Tractor Plant. They became the real masters of their own life, took their fate in their own hands. Under capitalism, under the old regime of private property, each of these people of the older generation had been not a human being but merely a worker, "existed not as a man but as a worker," to quote the words of Karl Marx. Between the de-humanised worker and what Marx calls "the full new re-birth of man" lies the way of revolution. Many of the older ones among the builders of our Tractor Plant fought actively, with rifle in hand, for the dictatorship of the proletariat, for the order of society which is now regenerating

mankind. "In the year 1918," wrote one of the foremen of the factory, "I was driving an armoured car defending Tsaritsin * against the Whites." Tregubenkov was commissar of a brigade, while Ivanov went through the Civil War, serving both in the ranks of the infantry and on the deck of an armoured train. When all these men met upon the construction site, they already had the experience of the Civil War behind them. And making full use of all the opportunities which the Revolution had offered them, they began managing, building, carrying on Party work first among the seasonal workers and later on among the workers of the Plant, the overwhelming majority of whom were young workers coming from all corners of the Soviet Union.

These young workers came from the Volga steppes, from out-of-the-way provincial townships, from little Jewish country towns. Many of them thought that they would already find "complete socialism" at the Tractor Plant. And it turned out that the socialist factory and the socialist city of which they dreamed were still in construction, that the walls and foundations were still being laid. At first they were billeted in barracks, they carted rubble, unloaded machinery and helped to install it—helped to install those same machines which they later learned to operate so well.

And there were many of these comrades who, like "Alice" Khloptunova, quickly developed from the level of an unskilled worker to that of a skilled assistant foreman.

That was only the beginning, however. Having mastered the intricate process of modern production, they became the masters of the machines they operated. But the most wonderful thing about these young builders of the Tractor Plant is that not one of them is content to mark time, all of them have grown and are growing, and this impetuous, this vehement urge forward can be vividly felt in every page of their biographies.

* Now Stalingrad. Comrade Stalin himself played a leading part in its defence during the most critical period of the Civil War, when it came to be known as the "Red Verdun."—Ed.

Take “Alice” Khloptunova, for example. The daughter of a worker, she came to the Plant from a provincial town and quickly became one of the first assistant foremen of the machine assembly shop, the forerunner and leader of a whole throng of others like herself—Y.C.L. members and students from the Factory School. In telling her own story she cannot avoid speaking of her pupils and comrades. And in this environment of youth we obtain a clear and full picture of “Alice”—the busy yet untrammelled mistress of sixteen marvellous machines.

People who once entered the shop as “a wild crowd, stamping around in their big boots and shouting” have now become assistant foremen themselves, and Terkul Khan, who “the first time he saw the machine working just gazed and gazed, breathing hard all the time,” has now graduated from the Workers’ College. “And I want to go and study too,” says Khloptunova, “I’m already used to work in our shop. I can now pick out a machine that is out of order by the unevenness of its beat. It’s just as easy as hearing when a player in an orchestra is out of tune. . . . Now I want to know all about metal, to know it through and through like the engineers who study it in the laboratories.”

No less than seventy per cent of the engineers and technical staff of the Plant are young people who have but recently ended their studies at Soviet colleges and universities. They represent the new “industrial and technical intelligentsia” of the Soviets; they are still studying themselves and are teaching others to master the technique of mass production.

These young Soviet engineers are not hemmed in by the musty traditions of a narrow technical caste and they are placed in quite different conditions from their colleagues in capitalist countries. In their life-story there is no gap intervening between study and work. Having completed their studies, they commence work immediately—the factories of our country are waiting for them, needing their services. The future, in the words of Stendhal, lies clear before them. This can hardly be said of the younger generation in America and in western Europe. On the contrary, everything there is nebulous and

uncertain. There the young “have no confidence in the future” (as *The New York Times* puts it).

“Just as was done ten and one hundred years ago,” writes William White in this paper, “solemn graduation speeches are now being delivered in the American colleges to the young people who are about to go out into the world. . . . In one of the western colleges one of the graduates said to his friend during the delivery of such a speech: ‘We are going out into a world, where there is no place for us.’”

In the U.S.S.R. there is work. In the U.S.S.R. there is room to apply one’s creative abilities. And this is a fact which those American specialists whose stories are told in this book came to understand on the basis of their own experiences. It was not all of them who came to this conclusion at once. Rollo Ward, the smiling American foreman who taught the youth of Stalingrad how to operate American machinery and participated in the life of their commune, did not at once arrive at that standpoint which he expressed to his friends in America in speaking of his young Soviet friends and pupils: “Can’t you see for yourselves that the future belongs to them?”

Ivan Paschenko, who for nineteen years worked for Ford in America, now works for himself. Henry Ford tried to keep him with promises of a pension. But Paschenko says firmly: “I’ll never go back to Ford.”

Louie Gross, the son of a Hungarian immigrant to the United States, complains of his restless temperament. As an agitator of the I.W.W., he found it impossible to keep a job for more than a few months in any American factory. Yet on coming to the Soviet Union he somehow manages to stay for some six years at the AMO Plant in Moscow, performing his work with great initiative and energy. And it is here, on this soil, that he gradually outlives the illusions of his “Wobbly” days and “becomes a real Red.” He is now fulfilling a complex and responsible task as head of the tool shop at the Stalingrad Tractor Plant.

Yes, the future belongs to the working class. It is for this immediate future that it is fighting at the present time. Eighty-seven years ago Marx and Engels wrote in their *German Ideology* that “people can only be changed *en masse* in a practical movement, in revolution; consequently revolution is necessary not only because the *ruling* class cannot be overthrown in any other way but also because only in revolution can the *overthrowing* class rid itself of all the old vileness and become capable of creating the new society.”

In the U.S.S.R.—in the factories and plants, in the Soviet farms and in the machine and tractor stations, in the collective farms and construction jobs—in the practical struggle for the building of Socialism, in the fight against the class enemy, people are being “changed *en masse*” today. That great master of revolution and beloved leader of the working class, Comrade Stalin, is directly leading this fight. The proletariat, having become the ruling class, is ridding itself of all the vileness of capitalism and creating the new society.

