SEMYON
NARINYANI

LIFE IN REVIEW

And Other Soviet Sketches

We see a young Communist, a steel-founder, telling his life-story, at the Party cleansing—shock-brigaders installing a boiler while the German experts tear their hair, declare that such a speed is impossible, unthinkable—a brigade of young workers tunnelling Moscow's new subway, goalkeepers and full backs in their spare time—and 20-year-old Afanasyev falling through space, counting with clenched teeth: "Twenty-six ..... twenty-seven" waiting for the moment to pull the button of his parachute and beat the world's record for a delayed jump. Soviet youth—its life—keyed-up, joyous, vibrant with the tenseness of struggle—such is the string across which this brilliant Soviet artist passes his bow, and the overtones of his five stories echo out over all the lakes and rivers of this mighty country.

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LIFE IN REVIEW

I

Before the Party cleansing—which generally started at 4:30—Sashka took a bath as usual. The bath-house was right in the shop, and during the last three years Sashka had quite unconsciously cultivated the habits peculiar to the steel-founder: physical exercises before work; three drinks of aerated water during the hours of steel-smelting; and finally, before leaving the works, the daily bath.

Of course, today was not an ordinary day for Sashka. Today, for the first time in the twenty years of his life, he was to stand before the cleansing commission and report on his work, the work of a rank-and-file member of the Bolshevik Party.

Sashka had long ago begun to prepare for this day, long ago he had reviewed the road he had travelled, and, in his imagination, his report took the form of a stirring speech. But when the chairman called Sashka's name and he mounted the platform, he completely forgot the sentences he had thought out long ago, and his report went down in the records of the commission as a prosaic chronicle.

"I was born in 1913. My father was formerly a peasant in the Skopino district of the Ryazan province; in 1904 he left the village and went to work in the Goujon Works and since then has been working as a roller at the open-hearth furnace."

That is how Sashka began. It was, of course, a correct beginning . . . but unfortunately it was not complete. It was quite true that Sashka's father, Andrey Petrovich Linkov, was an old worker in the open-hearth shop. But was that all—did that tell us anything about his father's mistakes, which nearly caused Sashka to follow a different road?

For fifteen years Andrey Petrovich Linkov shovelled the iron charge into the Goujon furnaces. During that time he was simply a wage-slave, without any prospects for the future, without any wider horizons, and those fifteen years of capitalist slavery confused old Linkov's ideas. The new conceptions of work and training could not enter his head.

"I won't let Sashka bend his back before a furnace," he said. "He shan't follow his father's footsteps. Let him do what his grandfather did, and live on the land."

In 1918 Andrey Petrovich took Sashka to Skopino, and left him there, far from the furnaces.

"I came to Moscow in 1925," said Sashka. "I went to a special school for children who were too old for ordinary schools. I left school in 1929 and signed on at the Taganka labour exchange."

That again was true, but it was not the whole truth. The fact was that Andrey Petrovich sent Sashka to the school still with the same end in view—not to let him

come close to the furnaces. Andrey Petrovich knew that at that special school the children were taught not only to read and write; so when, four years later, Sashka brilliantly passed the examination for a seventh-grade mahogany-worker, Andrey Petrovich could not leave off admiring his son; for in his mind's eye he already saw him a grand sofa and armchair maker. But it was 1929; there was no particular demand for the work of mahogany-workers. The father's dreams of a workshop remained dreams, and Sashka went on the labour exchange.

II

"In 1930 I went to the Hammer and Sickle factory school, which I finished in 1932."

How simple it sounds. And yet it was just these years that formed and toughened Alexander Linkov. It was in 1930 that he became an active member of the Young Communist League and began to make his road in life. He made steadily for the open-hearth furnaces and endeavoured to get a real knowledge of the algebra of smelting.

Sashka was one of the most active Y.C.L. members in the school. The teachers considered him to be one of the most diligent pupils at lessons of theory, while at the furnace, the steel-founders reckoned him a model worker.

At the furnace he started work as a roller, to Andrey Petrovich's indignation. "Ah! Sashka, Sashka," he said. "You have become a roller and done for yourself. I thought I would make a man of you, and you've gone and made yourself a van-boy."

"A steel-founder, and not a van-boy."

"You'll have to wait till your hair's grey before you rise from roller to steel-founder. I've been hanging around the steel-founders for twenty-eight years now and I haven't become one yet."

At first he grumbled and scolded, but after a while he got used to it. He started coming up to the group of factory school pupils, and taught his son the right way to hold a shovel and open the tap-hole at the furnace.

Before his second year at the school was over, Sashka had ceased to be a roller and achieved the honoured title of first apprentice.

In the second year in the list of prize-winners he was no longer called Sashka, but was respectfully put down as, Alexander Linkov.

While we are on the subject of prizes, it must be mentioned that to the commission Sashka spoke of them in a casual sort of way, as of something accidental; whereas prizes had become a permanent factor in the life of the shock worker Linkov. They had become as much a part of Sashka's life as exercises, the daily shower and books. In 1932, at the first All-Union Competition of Factory Schools, organized by the *Komsomolskaya Pravda,* Alexander Linkov was rewarded for exemplary diligence at school. It was at this period that he became a steel-founder, and, as a member of the shop committee, was rewarded a second time for concrete guidance of the group organizers. In 1932 the Y.C.L. nucleus handed over its best shock worker to the Communist Party of the Soviet Union.

"Well and since the middle of 1932," Sashka concluded, "I have been working as a steel-founder."

The year which he dismissed so unceremoniously was the Y.C.L.er Linkov's first year in the Party.

This year was the fullest year in Sashka's life. In the shop Linkov was the leading spirit at furnace No. 1. He had begun to win this place when he was still an apprentice. He never left the furnace unattended. When his teacher, the steel-founder Karassev, came to work tipsy, Sashka would take over the initiative and carry on the smelting himself. Sashka was not satisfied merely with the good work of the brigade; he talked to the workers about cost accounting, counter-plans, and fought to reduce the amount of waste.

For Andrey Petrovich, to qualify as a steel-founder, was the final aim of his whole life. But his father's aspirations clearly did not satisfy Sashka. He was aiming at a further goal. First he seriously studied technology and chemistry, and at last in the spring, without leaving work, he entered the evening classes of a metallurgical institute.

Through his father's fault Sashka was badly handicapped: until he was twelve he could not read. Therefore during recent years the Y.C.L.er Linkov had been making up with all his might for what he had missed. He was never afraid of any work. In the factory school he was a trade union worker; in the institute, a Party organizer, at the furnace, a steel-founder; and, finally, the Y.C.L.ers of the open-hearth furnace shop had recently elected him their secretary. Four tasks—four qualifications—four different sides of a man's character that were being developed.

III

Obviously, Sashka's report was too meagre to satisfy anyone. So the meeting showered questions on him to fill in the bare outline.

"You are a shock worker," said Shestakov, a steel-founder. "Tell us about the results you have achieved in cost accounting."

"I work on furnace No. I, which is a cost accounting furnace, as you know. In June we carried out a large economizing scheme and saved 4,000 rubles."

"What did you economize all that on?" somebody asked incredulously.

"Well, take the trifles," Sashka answered. "Before, when we removed the slag, we used to feed the stove with expensive chromium ore, now we use ordinary sand instead."

"Yes, but your furnace, Comrade Linkov, only shows up even more clearly how badly furnace No. 7 works," Comrade Ungur, the chairman of the commission, remarked, "and No. 7 furnace is a Y.C.L. furnace."

"Yes, the Y.C.L. furnace does work badly. I think it's the fault of the old leadership. Lukashev, the secretary of the nucleus, disorganized the brigade and undermined discipline. He himself drank, and others followed his example."

"That was in the past; but how are you strengthening the furnace now?"

"We have just put a group of shock workers on the furnace."

"Whom?"

"Cherepanov, Shernenko, Petrov . . ."

"Well, and what are the results?"

"We're seeing the results already. A little while ago, for instance, the furnace had to be repaired. According to the plan, we should have completed the repairs in nine days. But we mobilized the whole nucleus and the job was done in six."

"Under the old leadership your fellows got pretty well out of hand," said Comrade Lovinskaya, a member of the commission. "Have you been able to bring many to understand what a Y.C.L.er is?"

"Not a great many so far," Linkov confessed.

"Still, tell us who they are."

"Well, Grebeshkov is one. He had already become almost a confirmed drunkard. We took him in hand and now there's a marked improvement in Grebeshkov. Koshemyakin, a fitter, used to have reactionary ideas and was not a good worker."

IV

Endless questions were showered on Linkov. The workers asked Sashka about the work of the political circles, about Pioneer camps, youth barracks, mass meetings and membership dues.

Andrey Petrovich, who had come specially to see his son come up before the cleansing commission, kept fidgeting nervously on his chair.

"What do they want to badger him that way for?" he complained to his neighbour. "Why, Sashka was in Skopino until 1925; he's only just learnt to read."

"Don't worry, Petrovich," said his neighbour. "Now Sashka is the Y.C.L. secretary; he is given a big job, so a lot is asked of him."

And it was asked.

"There aren't many good workers in your nucleus," said Comrade Ungur. "Out of forty-five there are only fourteen shock workers."

"I know," Sashka agreed. "That's our weak point. We're doing our very best to correct it."

"Does the factory committee of the Y.C.L. help you?"

"Until June 23 they only used to send circulars round; but after the bureau or the District Committee had heard my report, the members of the factory committee took to coming into the shop more often."

"How about the Party nucleus? Has it heard your report or the report of the Party members attached to the Y.C.L. nucleus?"

"No, they haven't heard my report, and as for the Party members, there weren't any attached until just lately."

"That's bad," said Comrade Ungur. "We'll have to postpone the question of Party guidance until the secretary of the Party nucleus comes before the commission. And now there are a few political questions we want you to answer. What are you studying at the institute?"

"Political economy."

"And how are you getting on in it?"

"Well, not badly, I think," said Sashka with embarrassment.

"Then, in that case tell us what you know about surplus value," said Comrade Ungur.

"Surplus value," said Sashka, "is the inevitable concomitant of every system of capitalist economy. It is the labour power the workers are robbed of which the capitalists don't pay for but keep for profit."

"And how about Soviet economy? Do we have surplus value here?"

"Of course not. In a socialist enterprise the labour which is not directly paid for goes to make up socialist accumulation and is then returned to the workers in the form of rest-homes, dwellings, universities, new factories, and so on."

V

Andrey Petrovich could not contain himself. A father's pride was surging up in his heart.

"Why, Sashka ran absolutely wild until 1925; I kept him cooped up in the country. Last year I never thought of him, the whipper-snapper of a Y.C.L.er, as a man," he whispered to his neighbours. "And here he is talking politics to the chairman."

The sixth person was speaking about Sashka.

"You've already said a lot of good about Linkov," said Ungur. "Perhaps somebody has some other kind of statement to make." The meeting was silent. "That's all then. We have examined Alexander Linkov as a member of the Party, and we have all seen how Linkov has in practice justified the high calling of a Bolshevik. The Y.C.L. organization has not trained him badly. In his future work Linkov must bear in mind the advice which he has been given at the cleansing, and aim at making all the

Y.C.L.ers of the open-hearth furnace shop as loyal and active as himself."

Sashka silently took his Party card from Comrade Ungur's hands and quietly got down from the platform.

PSYCHOMONTAGE

Introduction

When the people of the air—the aero-specialists—begin philosophizing, they affirm that good pilots have cognizance of life by means of only two human qualities: iron ligaments and an eagle eye. All our other qualities and characteristics are disdainfully called the organs of equilibrium, and are relegated to an extremely modest place in the aero-organism.

> *As is well known, an aeroplane is controlled by the muscles of the arms and legs, which are directed through the nervous system by the pilot's brain. The most important and the greatest information is given to the brain by the organs of sight, while the other organs of equilibrium in the human organism give very little to the pilot. But the degree of confidence in these latter organs of perception is small, for during the flight they only mislead the aviator. (Spirin.)*

Specialists—people of precison—say that they think only in formulas. The people of the air have long ago mapped out Lermontov's "Aerial Ocean" with air routes,

motor-roads, and cross-roads, while Man's lightning flight into the sky is nothing but an ordinary everyday task.

Nevertheless the pilot does not consist only of sight and muscles. In a story the pilot must be made to appear as a living organism which consists of not only bits of sight, but of bits of hearing, carelessness, and even fear as well.

It is difficult to argue with specialists, because Life is determined by other things besides literature. The people of the air prefer the laconic language of the ordinary report to literature. They write, for instance:

By order of the commander of N. aero-brigade, a hydro-detachment was sent to fulfil a highly important task over the open sea at night. One of the battle-planes was under the command of Comrade Bortnovsky, while the junior engineer of the squadron, Victor Russakov, was on board in order to assist in the fulfilment of the task.

At a height of two thousand metres, when the plane was flying over the open sea, all the lights on board and in the cabin suddenly went out. The commander of the aeroplane informed Comrade Russakov that the dynamo had become detached from the centre section and had apparently fallen into the sea. Without a moment's thought Comrade Russakov rushed to the gondola and boldly leaned right overboard to see what had happened to the dynamo. He saw that the dynamo had detached itself from its fastenings and was hanging by a few

strands of wire over the centre section in such a position that if it broke off completely, it would hit the propeller in its fall. Under such circumstances the aeroplane would crash. A catastrophe was imminent. (Genger.)

The Flight

In a story this same communication would sound like this:

"The aeroplane was threatened with inevitable destruction. The dynamo was oscillating more and more. It seemed as though first one wire was about to snap, then a second, a third, and—the machine would fall. Destruction seemed so near that the most desperate thoughts entered the heads of the aviators. Several minutes before the catastrophe, Russakov, the junior engineer of the squadron, was seized with a desire to breathe the fresh sea breezes and to take a walk on the stern as on a promenade. Russakov sent a note to Bortnovsky, the commander, asking him to throttle the motor, and ordered the mechanic to fetch a rope. Pshenichny, the mechanic, quickly obeyed the order. A minute later the rope was attached and Russakov climbed out of the car.

Major Helders in his book "Aerial Warfare in 1936," writes: Just before dawn ten squadrons of British giants (250 aeroplanes) under the Commander of the Air Force, set out for Paris, reached their destination almost without hindrance, and dropped seven hundred tons of heavy fougasse

bombs, three thousand incendiary shells, and ten tons of mustard gas on the town. Subsequent events followed each other with lightning swiftness. The French air force attempted to reply to the British by bombarding English towns, but the British succeeded in intercepting the enemy squadrons over the English Channel and in destroying them.

The aeroplane was rushing to its death. Somewhere below, two thousand metres down, the sea was muttering and billowing. The propeller roared behind Russakov, and an icy stream of air beat upon his back in its endeavour to tear the junior engineer off the stern. But Russakov held fast. His frozen fingers clutched the end of the rope and he crawled to the centre section. Russakov decided to get up on his knees; he felt as though he were on the seashore, slipping down into the sea. The mechanic Pshenichny watched the junior engineer's progress with fear in his heart. He saw one wire snap, then another, and finally——. But what was happening? He saw Russakov get up on his knees, bend forward, and seize the dynamo. His task was fulfilled. He now had to get back. But first he had to turn an angle of 180 degrees. Now....

The wind was now blowing in his face. How ruthless is the wind in its endeavours to throw that human speck in the sky down into the black seething waters! Russakov leaned his head on the cold aluminium of the aeroplane. Once again he sank down on his knees, but the wind was heartless and its icy gusts pierced the breast of the junior engineer.

Indeed, even with the present number of battle-planes, the combined air forces of the five chief European powers are capable of carrying in one flight nearly a million bombs each weighing one kilogram. If we consider (in accordance with Vautier's calculations) that only 17 per cent of the bombs will cause fires, we arrive at the conclusion that there will be 170,000 points at which combustibles can catch fire. No one can deny that a simultaneous outbreak of fire in even one thousand buildings in any large town would lead to inconceivable panic and irreparable calamity.

Russakov's numbed fingers grasped the dynamo. If he let it go, it would hit the propeller and they would crash into the waves below.

He must crawl forward. He must crawl, even if it meant holding on to the rope with his teeth. And Comrade Russakov, junior engineer of the squadron, decided on one more desperate step. He took the frozen end of the rope in his mouth and crawled forward. He crawled, pressing the honour and lives of the crew to his chilled breast. How terribly difficult it is to climb over the surface of the madly-rushing aeroplane! What a long time Pshenichny takes to lean half his body over the side of the machine! And how clumsily he catches hold of Russakov!

But the junior engineer's strength was giving way. He was exhausted. He could not raise his arms toward the hatchway and pass in the dynamo, which by some magic agency was still clutched in his fingers. He felt

as though at any moment he would lose hold of the dynamo which would fall on to the propeller and drag along with it to their death the mechanic Pshenichny, and the commander Bortnovsky, and Russakov himself.

One more effort. Pshenichny decided to sacrifice Russakov and save the lives of the whole crew. He relinquished his hold on the junior engineer and seized the dynamo. At last the dynamo was safe on board. Now Russakov only had to climb up, and that would be all. This thought gave him new strength, and he clutched the rope. Russakov raised his head to clamber through the hatchway. But the wind had long been awaiting this moment. An icy blast whistled about his head, and it fell back again.

"Then that's the end, I suppose," thought Russakov, "I suppose I must open my fingers and fall down." Once again thoughts of sea smells and heavy foaming waves crossed his weary mind.

"But what about the plane? Must I drag it with me into the sea? If I fall, my body will strike against the propeller."

And once again his brain began to work. Russakov decided to climb into the hatchway legs first. He summoned up the last remnants of his strength, and crawled forward. But his fingers were no longer able to hold the rope: they slipped down, and nothing on earth could make the frozen hands hold the rope in their lifeless grasp. Russakov tried to put his foot in the hatchway, but the wind rushed up from behind and swept his foot down.

All, it seemed, was finished: the end had come. But for a second time Pshenichny, the mechanic, thrust half

his body out of the aeroplane and caught hold of Russakov by the leg. Something crunched in his knee; blood spurted out from somewhere, and an excruciating pain racked his weary consciousness. But the pain could be borne, for joy came together with pain. The junior engineer of the squadron was at his post once more.

How delightful the sea breezes smelt inside the battleplane!

> *Colonel Vautier in his book: "The Air Danger and the Future of the Nations" states that the second method of destruction will be poisonous substances and microbes. Various specialists consider that the amount of these poisonous substances necessary to perform their mortal work of infecting a given area varies from nine to forty tons for one square kilometre. Vautier considers that Hans Ritter's and Turper's figures—nine tons for one square kilometre—are quite feasible. In this way epidemic diseases can be spread by means of infecting water reservoirs with influenza, dysentery and malarial germs; small-pox, cholera, and diphtheria microbes are spread through the air.*

Thus Russakov is not only junior engineer of a squadron and the owner of strong muscles. Russakov is shown in this story as a man with a well-developed sense of smell. A sense of smell which will for ever remember the bitter truth of the sea breezes. But all this has gone down in the specialists' report in a much simpler form:

Russakov, who is a former mechanic, is junior engineer of the brigade. He is an active rationalizer who has a splendid knowledge of his work. He was one of the first shock workers, and is highly disciplined, energetic and careful. Russakov was a worker at the Methyl Works, and has been a member of the C.P.S.U. since 1925.

The Leap

The story of Comrade Afanasyev, the heroic record-breaker and world-famous parachute jumper, must begin in a different fashion:

The junior aviator Afanasyev suffered from a disease peculiar to landsmen; he was careless. Carelessness is a kind of measles which attacks the civil population but which nearly every one of us gets over without any trouble. Carelessness in the infantry is the same as scarlet fever: you must avoid it. But the attitude of the people of the air towards carelessness is entirely different: the air fleet fears carelessness like the plague; for a slovenly pilot means a smashed aeroplane and the charred corpses of his comrades.

The junior aviator Afanasyev suffered, we repeat, from a disease peculiar to landsmen: he was careless. Once even the commander of the squadron noticed this carelessness. The commander saw how Afanasyev's parachute scattered all over the place when he was getting out of the aeroplane. The commander called Afanasyev up to him and ordered him to start work at once at the parachute depository.

"Until you learn how to look after a parachute," said the commander, "you'll not be allowed to fly."

This is how Afanasyev, the junior aviator, came to deal with parachutes and to love them. This is how the struggle for the world record in the air began. But it was a far call from slovenliness to world records. Afanasyev had to start at the very beginning. First he had to learn to fold up the strings of the parachute quickly; then to get used to the weight on his back; and finally Afanasyev had to learn the basis of all arithmetic—simple counting.

"One, two, three, four..."

The future hero, the parachute jumper, Afanasyev, started his struggle with his besetting landsman's sin—carelessness—by persistent training for the world record; for the record at which he was aiming was the concentrated discipline of human consciousness, will, and sensation, and the road to this discipline lay through elementary mathematics. Afanasyev had to be able to count the seconds calmly under any circumstances, in any position, and at any height.

"One, two, three, four... One, two, three, four..."

The Italian, Due, in his book "Ascendancy in the Air" calculated that all the ships of the most powerful fleet in the world—the British fleet—can fire a broadside from their guns weighing a total of 195 tons; while the air fleet, which consists of a thousand bombers, each of which can carry no more than two tons of bombs, can drop a quantity of bombs weighing two thousand tons, i.e., ten times as

much. The cost of all the bombers, in Duc's opinion, will not exceed a milliard lire, i.e., it will equal the cost of only one modern dreadnought.

Afanasyev's first delayed jump was to be one of 250 metres. Afanasyev knew quite well how he would leave the aeroplane, how he would come to the edge of the wing, and would throw himself out.

"One, two, three, four . . ."

If only he would not lose count. His right hand firmly held the ring of the cord. But he must not pull the ring. He must fall 250 metres like a stone and only then open the parachute.

"One, two . . ." Every number represented a second, and every second was a precise number of metres. The falling metres increase in progression, but the rate of counting must not increase.

"One, two . . ."

It sometimes happens that the aviator must delay the opening of his parachute, and very often his life depends on his ability to effect this delay. When he jumps from a burning or a wrecked aeroplane, it is necessary for the airman to get as far away from the machine as possible, and only then open the parachute. Otherwise there is the risk of his parachute catching fire, or of getting damaged by falling pieces of the aeroplane.

In an aerial battle the airman can save his life if he jumps out of the damaged aeroplane, and opens his parachute as late as possible in order to reduce to a minimum the time necessary for the descent,

otherwise death is inevitable. The aerial foe will not spare him and he will be riddled with bullets before he reaches earth. (Minov.)

At the first delayed jump Afanasyev failed. Fear swallowed up all the training he had undergone, all his will, and all his consciousness. Afanasyev remembers how he dived down. The earth rushed up madly to meet him.

"One, two, three . . ."

The air whistles in his ears. His right hand holds the ring.

"Four, five . . ."

The rate of descent increases. Already the trees and houses are approaching his head.

". . . six, seven . . ." A terrifying thought enters his head at the same time as the trees and houses:

"Suppose I have altered the rate of counting and have been counting too slow? Then I can say goodbye to life. The parachute won't have time to open. I am muddling up the rate of counting."

". . . three, five, two . . ."

Brute fear for his life caused Afanasyev to tear at the ring. There was a jolt: the parachute opened.

The delayed jump had failed. Afanasyev felt too ashamed to rise from the ground and to look his comrades in the face. What had happened to all his training? Had the slovenly landsman overcome the discipline of mathematics in the aviator?

"One, two, three, four . . ."

And once again he had to learn to count. Once again he had to start training. Afanasyev now knew what the

earth looks like from various heights. By the size of shadows he could tell the height he was at better than by the altimeter. The number of jumps increased. Afanasyev was now able to count the seconds calmly while falling with an unopened parachute. Seven hundred metres, then eight hundred.

"One, two, three... One thousand, one thousand two hundred." He has beaten the record for the Soviet Union, but Afanasyev is not yet satisfied. The world record for falling with a closed parachute was 1,500 metres, and the junior aviator was stubbornly making for this goal. He simply has to learn to count.

"One, two, three..."

His fear at last seemed to have been conquered. It was twelve o'clock. The aeroplane piloted by Blagoveshchensky left the aerodrome and soared upwards. Afanasyev cast a last glance at the contours of the land below. When they reached four hundred metres Afanasyev thought to himself, "this is where I pull the ring," and looked down again. The aeroplane rose higher and higher.

Two thousand metres. The pilot gave the signal. Afanasyev climbed out on to the wing. He must drop 1,600 metres without opening his parachute. There was nothing difficult about dropping; all he must be able to do, if he was to remain alive and be victorious, was to count thirty-three and a half seconds.

"One..."

Afanasyev plunged downwards.

"Two, three..."

General Fuller in his book "The Transformation of War" writes: I am certain that in the next war large towns will be attacked from the air. A fleet of 500 aeroplanes, each of which will carry 500 ten-pound mustard gas bombs, for example, can destroy two hundred thousand human lives. In half an hour the town would be overcome by panic and the enemy would then be able to dictate his terms.

"Five, six, seven . . ." The howling wind penetrated under his helmet. Afanasyev was tired of falling head downwards and he decided to alter his position in the air. He stretched out his right arm horizontally, and now Afanasyev was dropping in a standing position.

Meanwhile he continued his rhythmic counting of the seconds:

"Twenty-two, twenty-three . . ." He stretched his left arm forward and now Afanasyev was falling towards earth in a horizontal position. The ground was rushing towards him at such a terrific speed that it seemed as if in another second all would be finished.

"Quick, pull the ring," cries fear. But will and consciousness persevered.

"Twenty-five, twenty-six . . ."

At the twenty-seventh second Afanasyev remembered that in America they had calculated the rate of a falling human body. Just now Afanasyev was falling towards earth at the rate of 190 kilometres an hour.

"Thirty . . ." His right hand felt for the ring of the cord. Fear made its last effort to conquer consciousness.

"Thirty-two . . . thirty-three . . ."

His right hand pulled the ring. The parachute opened out immediately. A terrific jar. For a second Afanasyev seemed to lose consciousness. But it was only for a moment. The rate of falling decreased, and the parachute carried the proud body of the conqueror smoothly to the ground.

This is how the junior aviator Afanasyev learnt to count to thirty-three and a half. It was thus that elementary mathematics conquered civilian slovenliness in a man.

Here our story of Comrade Afanasyev ends.

The specialists, however, finished their account in a different manner: they wrote:

> *Pulse before the flight 68; after the fall 120. The jump ended safely. The junior aviator Afanasyev is a member of the Y.C.L. and is a former fitter. He is twenty-four years old. He weighs 64 kilograms. By beating the world record, Afanasyev has proved that the human organism is capable of falling freely for more than 1,500 metres; which is very important for pilots to know during air battles and catastrophes.*

The End

And this is all, except for our last reminder of the fact that a pilot is not only muscles and sight. He must see, hear, know, think, learn, and act. And these are the qualities that go to make a Soviet pilot.

NIKOLAI VNUKOV AND HIS BRIGADE

Kolka Vnukov, apprenticed to Aliakhin the shoemaker, did not go to bed on Christmas eve. Kolka was tired to death of patching other people's boots and shoes and he had decided to run away to the coal mines. He waited until his master and the apprentices had gone to morning service, then packed up his things, and ran off to the miners. In the morning the foreman asked Kolka drily:

"How old are you?"

"Fourteen," answered Kolka.

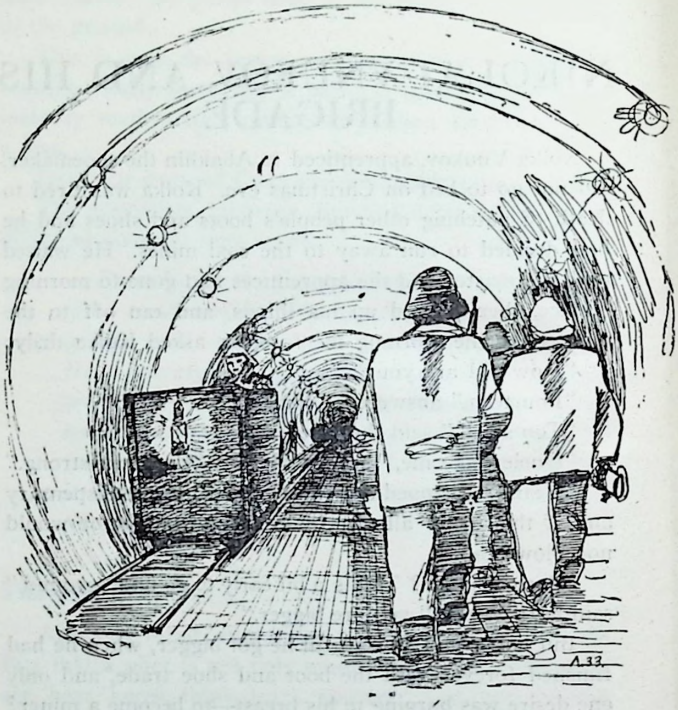
"Too small," said the foreman.

"Uncle, take me," begged Kolka. "I'm very strong."

"I can't," snapped the foreman. "Go to the dispensary and if the doctor allows you . . ." But the doctor would not allow him.

"Born in 1911? That's a bit early to go underground," said he. "Wait till you are bigger."

But how could he wait till he got bigger, when he had finished forever with the boot and shoe trade, and only one desire was burning in his breast—to become a miner? It was then that Kolka Vnukov decided to commit a forgery: he took his birth certificate and clumsily altered the eleven into a ten. Thus he became a year older,



was sent underground, and began his working career as a haulier.

When, after his first day at work, Kolka had great difficulty in straightening his back, the foreman gently patted his tired neck and cheered up the little fellow with a few well-chosen words of encouragement.

"Well, young'un," said the foreman, "try and keep on like that, and one day you'll be a fine miner."

Kolka did his best. Two years later he started work as a hewer and in 1929 was one of the hundred and fifty skilled Y.C.L. miners who were transferred from the Northern Caucasus to the Rykov mine near Moscow.

II

In March 1933 Kolka Vnukov met the miner Rogov in Theatre Square. Rogov had also worked in the Moscow coalfield—in the Kaganovich mine, which was just next to the Rykov mine. Kolka and Rogov had come to know each other quite well during their work in the coalfield, and consequently the two friends had plenty to say to each other about their Moscow impressions. Kolka thought that this meeting in Theatre Square was quite accidental. But as a matter of fact it was anything but accidental. Rogov had come to Theatre Square with the express purpose of making the future Shaft No. 12 of the Moscow underground a Y.C.L. construction job.

And now, when the question arose of getting experienced miners and organizers, Rogov, who was secretary of the Y.C.L. nucleus thought of Nikolai Vnukov. Rogov knew Kolka from his former three years' work in the Moscow coalfield. Kolka's steadiness at work in the

Rykov pit had been rewarded by thirteen bonuses, two certificates of honour, and three trips in the Soviet Union. In the pit Kolka Vnukov had broken the record, hitherto unbeaten, for the amount of coal extracted per day, and had carried away with him the name of the best "back" in the Moscow coalfield football team.

Rogov knew that Kolka Vnukov was a most skilful hewer and a master in the art of reinforcing, and that he was qualified to do something better than the work he had been doing for the past year at Shaft No. 21 of the underground construction works. So he purposely arranged this meeting with him in Theatre Square, and started a conversation on the subject.

"Well, Kolka, how's life in the shaft?" asked Rogov.

"Don't ask me," answered Vnukov. "It's not life—it's birth pangs. For a whole year your Kolka has neither mooed nor calved."

"What, you're homesick for real work?"

"That's it."

"Well, we'll give you some real work in a jiffy," said Rogov.

"And will you give me a brigade?" asked Kolka, brightening.

"The best brigade in the world. You'll have tigers, not boys. You just fit them with miner's teeth, Nikolai, and they'll gnaw you such galleries you won't believe your eyes."

"That's to say you're in need of experienced miners at your Y.C.L. shaft," said Vnukov.

"That's it."

"Well, we'll get them soon enough. I've already got several people in mind."

"Whom?" asked Rogov.

"Well, Kossarev for one."

"Which Kossarev?"

"Why, the one who was a fireman in our pit."

"A fireman," said Rogov, puckering his brows. "No, I don't remember him."

"But don't you remember," shouted Kolka. "He was always right wing in our team."

"You mean the Kossarev who always took such classic corners?"

"Of course I do."

"Well, he's more than a man—he's a treasure. Fetch him immediately. Meanwhile we'll talk about you officially at shaft No. 21."

Two days later Nikolai Vnukov left Limanov in his place as brigadier at Shaft No. 21, and arrived at Theatre Square with the fireman Kossarev and the hewer Baldayev. The same day Vnukov was given charge of a brigade collected from many different sources. In this brigade there were three of the ten thousand mobilized Y.C.L.ers; Nyegrustayev, a turner form the Caoutchouc Factory; Chmykhalov, a counting house clerk; and Mukhin, a Tartar. It included also two foreign workers—those very men who had arrived from America as foreign tourists to see Moscow; and having seen it, decided to stop there. There was also the tunneller Peregudov, and many others.

Vnukov cast his eye over his brigade, added Kossarev and Baldayev to strengthen the mixture, and said to Rogov, "we can start work."

Vnukov's brigade started sinking the shaft.

The first month they worked without any fixed plan. The engineers on duty had no industrial and financial plan as yet, and so the value of the workers in the new shaft was measured by them only by the number of rubles earned. This month was the touchstone on which the members of Vnukov's brigade were tested.

The mobilized Y.C.L.ers, the foreigners, and Kolka's friends from the Moscow coalfield worked conscientiously. And how could it be otherwise? The first were mobilized by the Moscow Y.C.L. for that purpose; the second were proving their devotion to their new socialist fatherland by their good work; and the third were brought into the brigade to add strength to it. Only Peregudov dawdled about. His behaviour in the Y.C.L. brigade was as jaunty as that of a famous actor on tour amongst the company of a provincial theatre. Peregudov demanded enormous wages and incited the mobilized Y.C.L.ers to malinger. Several times Vnukov tried to appeal to Peregudov's conscience as a miner, but as it was quite in vain, they had to send him back with a shameful discharge-ticket.

The work of the Y.C.L. brigade was exemplary from the very first month. Each member of the Vnukov brigade earned the maximum wages, and Vnukov himself was rewarded for his shock work with a fortnight's holiday in a rest home.

III

But who could think of a holiday, when it was already April, when the shaft was cutting into the gallery, and when at this important juncture, Nyegrustayev, the Y.C.L.er from the Caoutchouc Factory, began to feel low-spirited. His low spirits had their origin in something quite simple, of course. It was the free day, and Nyegrustayev paid a visit to his old friends from the rubber works. His friends made fun of him.

"He was a miner and a bad worker," sang one.

"He loved money, and yet never had any," added another. They made fun of Nyegrustayev, and these malicious jokes depressed him. This depression had a strongly marked effect on Nyegrustayev's life. His work began to suffer. Vnukov tried to cheer him up. He took him to the pictures and promised to make a first-class goal-keeper of him in the future team of the underground construction works. But it was of no avail. Nyegrustayev left the shaft. Then the members of the Vnukov brigade left off calling Nyegrustayev their comrade, and hung his portrait up on the deserter's board. The nucleus expelled him from the Y.C.L. and sent a letter to the Caoutchouc Factory.

A few days later Nyegrustayev came around to Vnukov's house. He sat a whole evening in his former brigadier's room without saying a word, but just before going he summoned up courage to say:

"I made a mess of things, Comrade Vnukov—I'm sorry."

"You mean you want to go underground again?"

"Yes."

"I thought so," said Kolka. "I'd be ready to take you back but what about the Y.C.L.?"

"I'll prove my devotion to the Y.C.L. by my work," answered Nyegrustayev. "You only take me back."

The story of Nyegrustayev's melancholy and repentance was told in detail in the underground workers' newspaper and the records of the Y.C.L. nucleus. The brigade once again received the prodigal Y.C.L.er into its ranks, while Vnukov took him under his personal supervision and made him a member of his link.

In April the Y.C.L. brigade took the first steps towards internal organization. Vnukov divided his brigade into two links. He put himself at the head of one link, and an American at the head of the other. The Vnukov brigade overfulfilled its plan in April. And, together with the Vnukov brigade, the Y.C.L. shaft No. 12 took first place for rate of work.

At the end of April the manager of the shaft, Comrade Stam, and Comrade Rogov brought their Y.C.L.ers the joyful news that the management of the underground construction works had for the first time recognized their mining ablities. For its shock work Shaft No. 12 was rewarded with the honour of leading the contingent of the thousands of underground constructors in the May First demonstrations.

IV

Victory followed victory. In May the Y.C.L. organization of Shaft No. 12 overfulfilled the plan, and was presented with the Red Banner. Vnukov's brigade was terminating the frontal cut. The persistence of the

Y.C.L.ers was now backed by technical skill. Mukhin and Chmykhalov had become quite good hewers—they were fifth-grade workers. Nyegrustayev became a fourth-grade miner. The organization of labour took a more and more firm hold of the links. Vnukov released the fireman Kossarev to return to his own work, and he and Yelizarov, the engineer on duty, introduced a certain amount of division of labour in the brigades. Now the links only tunnelled and reinforced the passage. Special people were appointed to roll away the rock and earth. Now each link had a daily task, and the results of this reorganization were soon apparent.

One of the links, whose assignment was to make sixty centimetres in one shift, made eighty and sometimes ninety. Vnukov himself, together with Nyegrustayev, Chmykhalov and Mukhin pierced more than a metre of tunnel in one shift, much to the wonder of the engineers.

In June the plan of work for the Y.C.L. shaft was altered twice. First the Y.C.L.ers were given the task of tunnelling thirty-six metres; when the Y.C.L.ers announced their counter-plan of sixty metres, the management increased the official plan to sixty-six metres. The Y.C.L.ers were not dismayed. They reckoned up their resources and promised to exceed this plan by thirty metres.

"The usual ravings," said one of the sceptics. "Our kids will break their necks over this counter-plan."

But the "kids" did not break their necks. In June the Y.C.L. shaft cut through over one hundred metres, thus overfulfilling their own counter-plan, and once again took

first place in the whole of the underground construction works. But this was not all.

At the beginning of July, Sharapov's Y.C.L. brigade, under the guidance of the engineer Kolomitsev, terminated the complicated construction of a shield before the appointed term, and now this shield, like a huge monument to Y.C.L. persistence stands before the Kitai-gorod wall, waiting for the day when it will be sent underground.

V

Nine-year old Kolka Vnukov, apprenticed to Aliakhin the shoemaker, ran away from him and became the best tunneller in the underground construction works. A large amount of literature, composed of official summaries, reports, diagrams, and pay sheets, has been written on this exemplary miner, organizer and Y.C.L.er.

Yesterday morning we met Nikolai Vnukov at the pay desk. He was receiving his pay for June.

This was in the morning, and in the evening Kolka, forgetting all about his sedateness and the money he had earned, was off to Sokolniki for the first practice match of the newly-organized football team. Kolka, as usual, played back. Kossarev was right wing. Nyegrustayev, owing to his short stature, was a forward, and not goalkeeper, as he had been promised. Only Mukhin, who had had no experience on the football field, wandered about like a citizen of no fixed occupation.

At the present time Vnukov's brigade is making its way through heavy limestone and a stratum of jurassic clay under Okhotny Ryad towards Shaft No. 10. Vnukov

is in a hurry to reach Shaft No. 10. He already thinks of setting individual tasks instead of tasks for a whole link. He is speeding up the rate of work because he knows that in a year's time the first underground trains carrying Moscow's inhabitants must follow in his footsteps.

THE STORY OF THE GUIDING PINIONS

At nine o'clock Herr Hartmann quarreled with the brigadier Bannikh. At ten o'clock he was having a loud dispute with engineer Tumassov, and finally three quarters of an hour before the end of the working day Hartmann ordered the German fitters to stop working and demonstratively left the works.

Hartmann went out banging the door after him to teach the brigadier Bannikh a lesson—let him learn to treat the established canons of the KASG with more deference and to respect the habits of its engineers. "You will tell them," said Hartmann to the interpreter, "that our firm has outgrown the age when frivolous experiments augment the profits of its shareholders. Long years of experience in the KASG have convinced us that the furnaces of its boilers cannot be installed in less than sixty days and seventeen hours. We do not intend to alter our convictions, and consequently if Herr Bannikh and the engineer Tumassov insist on a shorter period, we shall be forced to decline all responsibility for the future work of the

power station and to cease all participation in the installation of its boilers."

The patchy-faced girl hurriedly translated Herr Hartmann's words to "Herr" Bannikh, and ran along the planks after the other Germans.

While Herr Hartmann was raging in the boiler-shop, Herr Poljas was shouting to Mordukhovich, the autogenous welder.

"It's a mad country, and the people are mad. You play about with the reputation of such a solid firm as the 'Bergman' with impunity, and offer to conclude a frivolous agreement with it. You demand that we should mount a 12,000 kw. turbine in twenty days, when, from the very first days of the 'Bergman' firm, it has taken three or four months to mount a turbine. I have mounted turbines in Hamburg, in Berlin, in Budapest, and in Stockholm. I mounted them in completed buildings whose cleanliness might be envied by any Frau's boudoir in Neukölln. You have the impudence to make us shorten the period of construction, and where—in your Central Electric Power Station which has neither roof, nor foundation, nor windows. Where have you seen, Herr Mordukhovich, that the machine room should be the scene of operations for mounting turbines, digging in the ground, pouring concrete into columns, and tearing off part of the old woodwork over your head all at the same time? The 'Bergman' turbine is not a mincing-machine which you can fix on to the edge of a dirty kitchen table side by side with unwashed crockery and potato peelings. Poljas, Herr Mordukhovich, is a serious man and will certainly not

agree to time limits for mounting turbines which have been born in the far-from-healthy minds of members of the Young Communist League."

The conflict was coming to a head. Here, on the banks of the immense Magnitogorsk lake under the seven-storied concrete construction of the Central Electric Power Station, over the black depths of the pits, to the deafening noise of the huge works—two worlds had met and were fighting over the question of speed and time limits.

Herr Hartmann, the KASG representative, arrived at the works with German punctuality. The train had arrived at eleven o'clock at night; nevertheless at eight o'clock precisely, Hartmann, clean and fresh-shaven, stood by the table of the head of the power department. This was the first time Hartmann had been in the Soviet Union: he therefore introduced himself with great reserve to the engineer Tumassov and asked him to conduct him to his work.

On his way to the boiler-shop the German did not once discompose his fresh-shaven cheeks with a smile.

Why should he smile to a stranger in a foreign country?

They climbed up a ladder on to the foundations of the boiler-shop and then Hartmann suddenly broke the silence.

"Where is the roof?"

"It hasn't arrived yet. The Stalmost Works have not finished constructing the iron beams."

"Well, transfer your order to another firm," advised Hartmann. "Demand penalty for breach of contract."

Tumassov smiled. An embarrassed silence followed.

The German engineer's first piece of advice melted into thin air.

"What is this?" asked Hartmann.

"The foundations under the turbo-generator are being faced with concrete. There is a slight delay in building. The crushed stone is our great worry—we can't get enough of it."

"The crisis?" asked Hartmann.

"No. It's the lack of motor transport."

"Phone to a garage."

"But there's the same lack there."

"Well then phone to another garage, to a third one," advised Hartmann. Tumassov smiled; this was the second time he had smiled that morning.

"But still, when will all this work be finished? When will you put the roof on, fix windows in the boiler-room, and wash the floors so that we could start work?"

"Why not begin work without the roof and windows? We'll be seeing to the roof and windows while the work is going on, and as to the floor—we can wash that afterwards."

Hartmann was amazed at this system of work. At first he was perplexed by the offer, then be was indignant, and finally, his indignation made him bold.

"I did not know," he said, "that the Bolsheviks put their shirts on over their smoking-jackets. I am accustomed to constructing boilers in completed buildings, and I am not acquainted with your method of work."

"Well, I advise you to acquaint yourself with it," said Tumassov. "It won't hurt you. And at the same time you

might make the acquaintance of Comrade Bannikh. He will help you in this question."

Comrade Bannikh had arrived at Magnitostroy a few days earlier than Herr Hartmann. Bannikh had not constructed furnaces for the KASG either in Hamburg, or in Berlin, or in Stockholm. Bannikh had been sent by the workers of Leningrad to Mount Magnitnaya after constructing the fifth state electric power station.

Bannikh knew that it was not the cross-beams of a window that decide the speed with which a boiler can be construsted. Comrade Bannikh was not worried by the fact that all the various processes of construction would be going on at the same time. Bannikh had been sent to Mount Magnitnaya by the workers of Leningrad, and he brought with him his own code of Soviet labour ethics.

The foundation of these ethics under Soviet conditions was Man. Man decided both dates and speed. Consequently it was with him, with Man, that Bannikh began his work.

There were forty workers in Bannikh's brigade. The Labour Power Registration Bureau gave him forty numbers. At that time the people employed in the Central Electric Power Station were reckoned according to the figures on the payroll. The sleepy accountants conversed with them in the language of scratchy pens. People were known by numbers, and the numbers were registered with pluses and minuses. Plus—at work; minus—shirking.

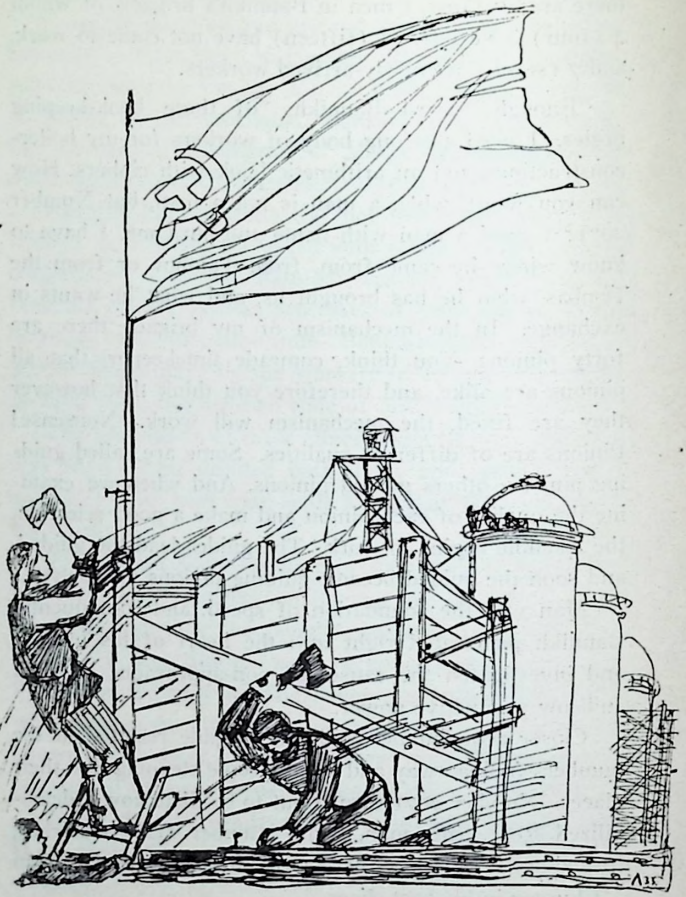
Every day the head timekeeper presented a report to the Labour Power Registration Bureau which ran as follows:

there are 40 (forty) men in Bannikh's brigade, of whom 4 (four) have left, 15 (fifteen) have not come to work, and 7 (seven) are newly-arrived workers.

"Enough," cried Bannikh, "of these book-keeping orgies. I need a strong body of workers for my boiler-constructions, not an arithmetic book with ciphers. How can you work, when a man is not a man, but Number 2071? I need a man with name and surname. I have to know where he came from, from Tambov or from the Donbas, what he has brought us, and what he wants in exchange. In the mechanism of my brigade there are forty pinions. You think, comrade timekeeper, that all pinions are alike, and therefore you think that however they are fixed, the mechanism will work. Nonsense! Pinions are of different qualities. Some are called guiding pinions, others guided pinions. And when we examine the quality of each pinion and make a good selection, the machine begins to work. The guides lead the guided, and soon the guided become guiding pinions themselves."

Man was the foundation of speed, and consequently Bannikh penetrated right into the heart of his brigade and investigated the causes of non-appearance at work and low productive power.

Closer acquaintance with the brigade resulted in the numbers fading away and living people stepping into their places. Number 2071 turned out to be Shamkov, a demobilized Red Army man, while Number 2120, a shirker, turned out to be a peasant from a Siberian collective farm —Chussov in his bast shoes.



The numbers came to life; they began speaking with their own voices, and at last Bannikh heard the dialects of the Ukraine, of the Kaluga region and of Vladimir in his brigade.

The Leningrad fitter Bannikh found that his brigade was too variegated. The villages in the Tambov, Ryazan, Kazan, and Ural provinces had a great many representatives who now held a chisel for the first time in their lives.

Bannikh was looking for leaders, but there were too few in the brigade. The old timekeeper continued as usual:

20 (twenty) non-appearances, 6 (six) have left.

"Ask Herr Bannikh," said Herr Hartmann to the interpreter, "why there are so few workmen at work?"

"The rest are shirking," answered Bannikh.

"Give them all the sack," advised Hartmann.

"And where shall we get others?"

"Get some unemployed at the factory gates."

Bannikh laughed.

"Tell Herr Hartmann, that first of all our gates are not built yet, and secondly that there are no unemployed."

Hartmann could not understand how there could be no unemployed in such a huge country. Bannikh, on the other hand, was not surprised. Comrade Bannikh solved the labour problem in his own way. He went to the Y.C.L. committee, sat down opposite Shcharinsky, the secretary, and said to him:

"I haven't enough guiding pinions in my brigade. Let me have a few Y.C.L.ers—we'll make the boiler a youth boiler. And then we'll set a counter-plan."

Shcharinsky pondered. He asked Bannikh about the men, tried to recollect shock workers who could be suitable for boiler constructing, and Bannikh shook hands with him.

A week later Bannikh's brigade was divided into links. Shamkov became leader of one link, Golubkov and Gordiev leaders of the second and third, Matveyev of the fourth, and Slessarenko of the fifth. The links demanded plans and orders. Shamkov announced that he was a shock worker.

The five links became the five fingers of the Bannikh brigade. Gradually the five fingers clenched into a fist.

On July 31, the brigade for the first time said to five men who arrived late:

"What, you've overslept yourselves? Well, go back and finish your sleep. We don't need shirkers here."

A careful selection of pinions was being made in Bannikh's brigade.

In the middle of the second month of work Herr Hartmann raised the first serious row.

"What is Herr Bannikh driving the workers like that for?" he asked the interpreter.

"Tell Herr Hartmann that we have a counter-plan."

"And what is a counter-plan?" Hartmann's eyebrows were raised inquiringly.

"Our workers want to construct the boiler furnace with all the hydraulic equipment in thirty days."

"Not in thirty days, but in sixty days," interrupted Hartmann.

"You say sixty days," explained Bannikh, "but the workers think they can do it in thirty."

"What workers?" said Hartmann disdainfully, and looked at Shamkov's greasy cap. "Perhaps this soldier thinks so? A soldier drinks well and works badly."

"He is not a soldier, but a demobilized Red Army man."

Hartmann made an impatient gesture, and glanced at Chussov's bast shoes.

"The soldier Shamkov and the muzhik Chussov will not argue with the KASG. Hartmann constructs boilers of the KASG system in sixty days and seventeen hours. Herr Bannikh—there is nothing more to be said."

When Bannikh started protesting, Hartmann gathered up the plans, and left the works.

The young engineers Mezherovsky and Dmitriev went up to the boiler.

"Has he gone?"

"Yes, he's gone."

"And the plans?"

"He's taken them with him."

A worker from the KASG stood near Bannikh. As soon as Hartmann was out of sight, he began explaining something by means of smiles and gestures.

"We don't need plans. The plans are in our heads. We have already installed ten furnaces." (Here he spread out the fingers of both his hands.) "There's nothing very terrible about furnaces. Let Hartmann yell as much as he likes. You work, and we'll help you."

Hartmann yelled and raged more and more frequently. More and more frequently he left the boiler-room with the plans under his arm. More and more frequently Bannikh and Mezherovsky climbed on to the boiler and con-

versed with the German workers by means of various gestures.

Shamkov's link was commencing rolling operations. Shamkov was the leader of his link. He acted as guide to the old man Chussov, two Y.C.L.ers, two demobilized Red Army men like himself, and two fitters—the unskilled workers of yesterday.

The link was commencing rolling operations. The day before Shamkov had seen how the old boiler-makers in Gordiev's brigade had been rolling pipes. Shamkov was rolling for the first time in his life, and consequently there was a feeling of timidity about the work.

Shamkov rolled the first pipe too long. He did not know when to stop rolling. He did not like asking the old workers; for the leader is supposed to know everything. The time dragged out like an endless chain. Chussov was awaiting the end, but Shamkov did not know when it would come. Bannikh came up to them, looked at the rolling, and glanced at Shamkov.

"That's a good pipe. Go on to the next. What is the plan?" he asked.

Chussov answered instead of Shamkov.

"Forty."

"It's decided on?"

"Yes, comrade brigadier."

"Will you manage forty?"

Shamkov again made no answer. Shamkov was afraid to promise and then not fulfil his promise. He fixed the roller into the second pipe, and pretended not to hear the question. The link followed its leader and set to work.

That day Shamkov remained at work when the eight-hour day was finished in order to fulfil the task for the day. Chussov seeing him stay, followed his example. The rate of production in Shamkov's link began to rise. Forty pipes gave place to forty-five. Forty-five to fifty. Fifty to sixty.

Hartmann stormed and raged. He vociferated that he was not in need of such a great rate of work He tried to prove to Bannikh that he did not require more than forty pipes a day. Hartmann could not possibly understand why the soldier Shamkov and the muzhik Chussov voluntarily worked five or six hours overtime and rolled sixty pipes in one shift.

Shamkov went further. He began finishing seventy pipes a day, and finally eighty. Comrade Bannikh's brigade finished the construction of the KASG furnace on the twenty-fourth day. On September 3, Bannikh was ready to start the pressure. Herr Hartmann rushed to Tumassov and demanded ten days for examining the boiler before subjecting it to hydraulic pressure. Ten days and not a day less.

"Perhaps Herr Hartmann will be satisfied with a two hours' examination," said Tumassov smiling.

Hartmann did not trouble to continue the conversation. Forty-five minutes before the end of the working-day he ordered the German workers to stop work, and demonstratively left the works.

Hartmann went out banging the door after him. He was going to teach Herr Bannikh, Tumassov, and Shamkov to treat the established canons of the KASG with more deference and to respect the habits of its engineers.

At one o'clock in the afternoon the boiler was filled with water and pressure was started.

When the pressure in the boiler rose to ten atmospheres, a man was sent to Hartmann asking him to come and take part in the trial.

Hartmann did not come. The pressure rose higher and higher. The pressure gauge showed twenty atmospheres. Bannikh stood by the pipes in silence. Hartmann was sent for a second time. He again refused to come.

The pressure gauge showed thirty atmospheres.

The pointer was approaching forty when Hartmann at last decided to send one of his men. The man arrived, looked at the pipes, and ran back. Hartmann himself came up the ladder.

With the pressure at forty-three atmospheres the boiler was examined. Of the 1,600 pipes of the boiler only one dripped.

Hartmann sought out Comrade Bannikh. He shook his hand and said to the interpreter:

"Tell Herr Bannikh that the KASG has been beaten. The furnaces of the KASG system can be constructed, not in sixty days and seventeen hours, but three times as quickly. Tell him that the Soviet Union has set up the world record both for speed and for quality. I, Hartmann, have never yet heard of a case of boiler construction where only one of 1,600 pipes should leak."

On the fourth of September the Y.C.L. boiler was handed over to the boiler inspector. Bannikh put Shamkov at the head of an independent brigade, while the old man Chirsov was made guiding pinion of the link.

In the evening Herr Poljas paid a vist to Herr Hartmann.

"The Bergman firm," he said, "has suffered defeat the same day as the KASG. You remember that youngster Mordukhovich whose impudence I spoke to you about. He made me change my attitude to the traditions of our firm. Today we completed a turbine which we began constructing twenty days ago. Such things can happen only in this strange country. Only fanatics like Mordukhovich can work like that. He used not to leave the boiler-room for three days at a stretch, and he used to make me work twenty hours without a break, and of course, he attained his object.

"You know," continued Poljas, "I have never seen people fight like that to keep a promise. Our Y.C.L.ers performed wonderful deeds. They worked for days at a stretch. When carpenters were wanted, they were standing ready, axe in hand. When concrete-workers were wanted, they dropped their spanners and started mixing the concrete. When there weren't sufficient rags to wipe the various parts, they took off their shirts."

Hartmann and Poljas were silent. The Y.C.L. turbine of the Central Electric Power Station was completed in twenty days. On the evening of the fourth, Mordukhovich read a report on the work of his brigade to the Party nucleus, and he was scolded for his tactless attitude towards the German specialists.

In February there was yet no lake where the huge Magnitogorsk lake now lies. There were no seven-storied concrete cross-beams in February, when it was minus

MAN AND HIS TROUBLES

Every human life is made up of alternating periods of happiness and vexation. It is quite impossible to keep free of trouble and add nothing but sweet syrup to one's life; for so far no bureau has been created anywhere whose business it is to plan out the distribution of good and evil.

... I counted three such troubles in the life of Alexey Ivanovich Bichkov.

The first trouble was a social one, and one which he would have missed if he had been born later.

It was 1925 and a generation of eighteen-year old people lived in the world. This generation, with documents from the Penza, Tambov, Ryazan and Kazan village soviets in its pockets, was flocking to Moscow to find work. And Alexey Ivanovich Bichkov, a farm labourer from the Kaluga province, born in the village of Baryatin, also came to Moscow.

It was 1925, and Alexey was experiencing his first trouble—unemployment. (Younger generation please note: this social trouble still existed in 1925). And unemployment meant standing for long hours by the misty windows of the labour exchanges in Rakhmanovsky Pereulok, in the Taganka, in Krassnaya Pressnaya. Unem-

ployment meant frequent visits to factory gates and timid questions addressed to the proud watchmen. "Maybe you can find a week's work for a day labourer?"

Yes; unemployment was a dismal thing; for unemployment meant the house manager's abuse, and the tempting smell of the hot dishes in the dining room—a smell which follows you about like a faithful dog in the streets, goes into the tram with you, and does not even forsake you in the premises of the provincial department of the agricultural workers' union.

In 1926 the Moscow Garment-Making Trust at last gave Alexashka a temporary unskilled job in one of its warehouses, and Alexashka spent the whole year carrying boxes of goods to and fro.

In 1927 Alexey Ivanovich Bichkov was given a permanent job in the Moscow Garment-Making Factory.

One more year was spent among boxes, sacks, and whisks, and at last the long-awaited happiness came—qualification. Alexashka was taken on by the foreman of the tailoring department and he was taught to cut out ladies' outer garments in cloth, wool, and velvet.

Time passed. His period of learning was coming to an end. And then, when the foreman of the department said to Alexashka: "Well, that's all; now you are a skilled worker yourself. You've made a man of yourself," Alexashka was visited by his second trouble.

There was a hitch in the next floor, and Alexashka, who was a skilled cutter of ladies' outer garments, was sent to work as a cutter in the cap department. But it was 1928. Alexashka was a skilled workman and he

grumbled openly. In the Y.C.L. nucleus they said to Alexashka:

"Comrade Bichkov, the Y.C.L. is not only a voluntary union; it means discipline as well. Once the cap-makers' work is held up, they have a right to mobilize any of us."

Thus Alexashka became a cap-maker, and he worked as ribbon-cutter. Because of the machine he used he was called a ribbon-cutter, to distinguish him from the cleavage-cutter.

The scars on Alexashka's fingers to this day bear witness to this—the second period of trouble, and of grumbling; for grumbling entails carelessness, and carelessness at the cutting-machine is registered at the nearest first aid station in the form of an accident.

II

Alexey Ivanovich Bichkov worked for more than two years as a cutter on the second floor and was reckoned among the individual shock workers. Carefully and honestly Alexey cut out thousands of different kinds of caps, and his one thought was to fulfil the daily task allotted to him. The head of the department had a high opinion of Alexashka. In the capacity of co-operative delegate he distributed food cards and orders for goods to the workers after work, and later on in the evening hurried to the district Communist University.

In September 1931 the nucleus decided to collect all the individual shock workers on the fourth floor and organize the first Y.C.L. brigade. The individual shock workers had no objection, and the eighteenth of Septem-

ber saw the birth of the Klim Voroshilov shift of Y.C.L. cap-makers.

The process of cutting out a cap consists of six strokes on one piece of material.

The first stroke is made by the spreaders—they stretch the long ribbon of "Boston" wool and cover the table with a ten-layer roll of material. The hand of the chalker performs the next stroke. It must be owned that formerly Alexashka was not terribly interested in the work of the chalker. His chief concern was that the work of the cutter should not be spoilt by bad chalking; for he, Alexey Ivanovich Bichkov, was the cutter. Now the Y.C.L.er Selektor is working as chalker in the brigade, and so one very often hears the admonition:

"Hurry up with your chalking—don't let the whole shift down!" Selektor covers the top layer of wool with chalk circles and ellipses, and it is over these chalk marks that the third and fourth strokes are made: those of the cleavage-cutter and ribbon-cutter.

The fifth stroke collects the pieces of material into sets and the sixth stroke packs them up.

Six strokes—this is the sum of the work of the Y.C.L. brigade.

Hundreds of thousands of people in town and village go out with caps, berets, etc., on their heads, and never dream that these caps are born as the result of six strokes performed by the Voroshilov brigade and are cut out by Alexashka's ribbon cutter. Every day, grey, blue, black and red pieces of material passed through the hands of Alexashka, and he liked to think that it was he, Alexey Ivanovich Bichkov, born in the village of Baryatin, a

labourer from the Kaluga province, who clothed millions of heads in cloth caps and protected hundreds of thousands of bald heads from the cold.

III

Alexashka was visited by his third trouble in February 1932. On the very day when the portrait of the shock worker Alexey Ivanovich Bichkov appeared for the third time in the factory paper *Quality First,* Alexashka was called up before the Party nucleus.

"We have decided to transfer you to the co-operative store," said the secretary. "As you know, the food front is more important than anything just now. You go there to feed the workers, and we'll help you."

"But what about the brigade, the caps and berets, I mean everything," Alexashka's voice was stifled with agitation.

"What about everything? We'll teach somebody else in the brigade to use a cutter, while there is no one whom we can teach in the co-operative store besides you: you're the only one who has had experience as the co-operative delegate."

Alexashka went out of the room with a weak feeling in his knees. "Everything is finished," thought he. The skill which he had acquired after three years of drudgery, the shock brigade, which cut out ten thousand caps in one shift, and the cap-makers' department, whose shock workers had already for two years kept firm hold on the Red Banner of Honour—all this was done and finished with.

The decision of the nucleus aroused much discussion in the department.

"That's the end," said one. "They've gone and given you an embezzler's job, and in six months' time you'll be in Butirky Prison."

The grey-haired chalker from the second shift of cap-makers said to Alexashka just before the changing of the shifts:

"Well, old fellow, so your Y.C.L. brigade has not caught up with our brigade. This month we'll get ahead of you again by two per cent."

His friends in the brigade and in the nucleus had heart-to heart talks with Bichkov and tried to persuade him not to accept the promotion.

"You can protest," they said. "Pretend you're illiterate and they'll leave you alone. Now you're in the cap department, and everybody respects you, while in the co-operative store you'll get nothing but black looks. If the cucumbers are rotten, it's your fault; if the meat hasn't arrived, blame Alexashka; if the salesman drinks, Bichkov is reprimanded."

All these talks encouraged Alexashka, and he thought, "I shan't go."

The head of the department, Comrade Yemelyanov, aided him in his decision, and he announced to the nucleus, "I can't let Bichkov leave the brigade. I've got no one to replace him at the cutting machine."

The discussions between the nucleus and the head of the department lasted a whole month, and at last they said to Alexashka:

"That's enough talking. From the twentieth of March, Bichkov, you start work in the management of the co-operative. The work is temporary, so you needn't make

a fuss. As soon as the co-operative gets going, you'll go back to your work."

There was no point in arguing with the nucleus, because if the Y.C.L. means discipline, the more so does the Party. And Alexashka thought to himself:

"It's an ill wind that bring nobody any good. Once it has been decided, it must be and that's all there is to say about it. Up till now I have had two troubles—now it will be three. If there hadn't been such a thing as unemployment my soul wouldn't have been filled with such superhuman love for the factory. If I hadn't had my second trouble I should have been a tailor to this day, and wouldn't have known the joys of shock work in the Red Banner department of cap-makers. Perhaps this third trouble, like the first two, will have its bright side."

Alexashka only thought about the bright side, but actually he hoped for the opposite.

"I suppose I'll manage to stop there till summer. The work is only temporary, fortunately."

The first days in the co-operative store were endless. The hours and minutes dragged out, and would not release Alexashka from his chair in the manager's office. The work in the little room in the co-operative was strange and dull. Alexashka felt he could not sit there any longer doing nothing. It seemed to him that all the customers were looking at him with indignation and that they muttered "bureaucrat" under their breath.

Alexashka couldn't bear the tedium any more. One day he said, "I'm not going to sit in this office any longer. I want to go back to the workshop."

"Right you are," answered the manager. "You can look after the organizing and mass department: talks, meetings, and collecting dues."

Alexashka did what he had intended. During the break he went to the cap department.

"Well, how are you getting on?"

"What's the price of hot air per ton in your shop?" His comrades bombarded him with questions—both serious and humorous.

"Well, all right," answered Alexashka. "But I'm not stopping in the office any longer. I'm going to work with you here in the shop. I'm going to collect dues and get things going."

"Well, fire away," answered the other workers. "We'll help you. The cap-makers never minded being taken in tow."

And their promise was not mere talk. Alexashka's first visit to the workshop was accompanied by a great influx of membership dues.

IV

He did not make a very bold beginning in his work at the co-operative. He did not find it at all an easy job to learn the work connected with the counter.

First of all, Comrade Bichkov had to learn what a Closed Workers' Co-operative was. He knew quite well what a cap was for, and how it was made. But what was a Closed Workers' Co-operative? Perhaps it was only a transmitting shop in the factory, a link in the Moscow co-operative system, and then everything was

clear. His whole work would then consist in organizing the distribution of the food products which came from the higher organizations. But what if the Closed Workers' Co-operative was not only a distributing shop, but an organization which was to organize its own supplies as well? It was not so long ago that the director of the factory said to Alexey:

"Let's come to an understanding; you supply my workers with every food product they require, and I shall help you both organizationally and with money."

And the secretary of the nucleus added.

"Our first concern is to organize our own supplies. That means kitchen-gardens, piggeries, and so on."

Under such circumstances Alexashka had once again to turn his attention to *subbotniks* (voluntary work), shock work, and socialist competition. The Moscow Soviet gave the Moscow Garment-Making Trust thirty hectares of land at Ochakovo on the Bryansk Railway.

"Plough and sow."

Alexashka once again came into the workshops. And once again the first to answer the call were the cap-makers. At the end of the day's work the chalker Selektor rallied the Klim Voroshilov shock brigade, and they went on *subbotniks* to their allotment. Brigades from the second and third floor followed the cap-makers to the kitchen-garden. The different departments divided the land among themselves, and soon there was socialist competition on the cabbage and potato beds.

Singing, the factory people went to their allotment to plough, sow, and hoe. And the next day Comrade Bichkov was presented with the official deeds in whose

irregular lines Alexashka read his own happiness. On the small sheets of these deeds a list was drawn up of the names of the workers who had worked on the allotment of the Closed Workers' Co-operative. The long list included Afanasyev, Artemova, Boleshov, Berelovsky, Vasin, Ivanov, Selektor, and many others. The list was followed by the deed:

> *On July 25, 1932, we, the undersigned, the manager of the farm, Rassokhin and the accountant Antonov, drew up the present deed to the effect that thirty-five persons worked this day on the allotment of the Closed Workers' Co-operative of the Moscow Garment-Making Factory, which work consisted of weeding and hoeing potatoes. The abovenamed comrades have earned thirty-five workdays. The work was done satisfactorily, in witness of which the present deed was drawn up.*

While the potato beds were green and the cabbages were imbibing sap, while the brigade went digging and weeding, Alexashka turned his attention to the pigs. First of all he learnt that the English call the pig a meat factory and that this classic aristocratic country possesses, besides fogs and damp, very many different breeds of pigs and that the most famous breed is the Yorkshire breed, representatives of which very often weigh as much as half a ton.

In June, Alexashka built the piggeries in Ochakovo, and soon the grunts of fifty lop-eared meat factories were heard on the allotment.

Rabbits followed the pigs. Messengers from the Moscow Garment Factory were sent in every direction, and soon telegrams started arriving at No. 4 Ipatyevsky Pereulok, Kitai-gorod:

"Found angoras wire consent," or, "Offer of ordinary rabbits eat everything." And, at last, "Bringing two hundred prepare cages."

V

In July the head of the department, Yemelyanov, came to Alexashka.

"Well, Comrade Bichkov, shall we go to the nucleus?"

"What for?" asked Alexashka.

"What for? Have you forgotten that you were made an embezzler only temporarily? Well, time is up, and you can go back to work, to the hats and caps."

"Just a minute" said Bichkov. "As a matter of fact, I quite forgot it was temporary. Yes, temporary," he repeated. And then, to his own surprise, he added:

"I don't think I shall be going back. We have made a big thing of our Closed Workers' Co-operative—the kitchen-garden, pigs, and rabbits. Just now we are negotiating with some collective farms. We are making contracts with them to supply us with meat and milk, and soon we shall have our own Soviet farm. So, in the circumstances, I don't think I shall be allowed to go back."

Yemelyanov shrugged his shoulders, and went upstairs. Rumours that Alexashka was not returning to the workshop reached the ears of the brigade.

"Well," said Selektor, "I think he's right. His place in the shop has been taken by a specialist—true, he's not

as good as Bichkov, but he is a specialist all the same, whereas Alexashka stands alone in the co-operative. So don't let us worry the management. Let Bichkov look after the food supplies."

"Food supplies," sneered someone. "It's just because it's more comfortable there, and he doesn't want to come back. A traitor to industry—that's what your Alexashka is."

The subject became a matter for discussion in the factory, and in the evening Alexey thought to himself:

"Perhaps I really am a traitor to industry? Things have got worse in the shop. The new cutter isn't working honestly and is spoiling the work of the whole brigade, while I am messing about with potatoes and pigs. I'll go back," decided Bichkov. "I shan't be a traitor."

In the morning, when Alexashka entered the co-operative manager's little office with the firm intention of finishing with the co-operative, he was met by the chairman of the management.

"A good thing you came early," he said. "I was already going to search for you in the workshop. I've got to go off to Ryazan at once to see a Soviet farm. We're going to have a real large farm—760 hectares of land, an apple orchard, kitchen-gardens, cows—altogether, nothing more nor less than an agricultural giant. So for a few days you'll have to remain as manager. See you don't fail us, Alexey."

As he was saying this last sentence the manager gave Alexashka a huge packet of instructions, and went off.

"Here, just a minute," said Bichkov. "I was returning to the workshop today. But it is not to be..." But he

was interrupted by the arrival of the head of the kitchen-garden, who, while he was still in the street, began his joyful report:

"According to the preliminary observations of the local peasants and of the agronomists, there should be a good potato harvest—five tons per hectare: consequently, multiplying by eighteen, we shall have ninety tons of our own potatoes. We shall have fifty tons of cabbages from the four hectares."

Here the telephone bell rang, and Alexashka was soon immersed in the daily whirlpool of co-operative business, and thoughts about leaving were put off for better times.

VI

The Moscow Garment Factory Co-operative continued to develop. This co-operative had long ago left off being a simple distributing shop in the Moscow co-operative system, and had become a firmly established economic organization. The turnover of the co-operative increased and business extended. But Alexashka's principle of work remained the same. It was based on the workshop and the shock workers. Every free day the shock workers took the train to Ochakovo and engaged in socialist competition there: they dug up vegetables; sorted potatoes and stored them up for the winter: sent thousands of kilos of cucumbers to distributing stores, and made preparations to collect the cabbages. Meanwhile the pigs had quite imperceptibly grown into adults, and Alexashka was confronted with new problems. Yesterday for

instance, a sow with twelve teats geva birth to fourteen young ones. And Alexashka did not know how such a large family of pigs could be fed when there were insufficient teats.

Soon there was an increase of rabbits. There was double the number of rabbits in the warren straight away, and Alexashka had a new worry—cages and food.

And then there was the Soviet farm—their Soviet farm, the pride of the Moscow Garment Workers. It had been taken over in an untilled state and it demanded, not only admiration, but hard work as well. The ripe corn, potatoes, onions, cucumbers, and cabbages had to be gathered. And all these crops now occupied an area of many hectares. In addition to the vegetables and grain crops, there was the orchard and dairy to look after. The huge herd of cows required sheds, and this meant building. In September the windows of the co-operative stores were awaiting the Moscow Garment Factory apples: the apples had to be picked off the trees, and the trees had to be pruned and the soil turned up. Autumn sowing and ploughing followed pruning, and the co-operative had to increase its stud of horses seven times. All this demanded Herculean labour. But the shock workers of the cap department were not afraid of work. Alexashka informed the Y.C.L.ers with pride:

"Well, these last few months have given us something to be proud of. We have provided the workers in the Moscow Garment Factory with meat, vegetables and dairy produce."

December had arrived. The factory co-operative stood firmly on its own legs. In December Alexashka smilingly

remembered the March days of the co-operative: they seemed to him to be the far-off and helpless days of his childhood. Nevertheless Alexashka was beginning to feel worried about his own future prospects. Today he had caught himself thinking about this. When he was living in the country, the two years' education provided by the village school were sufficient for his needs. When he was an unskilled worker he began attending classes for general education. As a skilled cutter Alexashka was obliged to attend a district Communist university for a year.

"Is it really because of my work in the co-operative management," thought Alexashka, "that I am to become a student in the Planning Institute?"

"It was only half a year ago, Comrade Bichkov," said Alexashka to himself, "that you were in the brigade, and thought of entering a technical institute, and not a planning institute at all."

"Yes, and what about the brigade? What about the workshop and the caps?"

And for the first time Alexashka thought seriously about his future. He tried to picture to himself what a person's individual five-year plan meant, and could not decide which way he was going—to the factory or to the co-operative? It was only in March that the Closed Workers' Co-operative was a simple distributing shop which he had looked upon as one of his troubles in life.

But what was it now? Now the Closed Workers' Co-operative was a Soviet farm, a kitchen garden, a dairy farm, apple orchards, shock work, and socialist competition. Now the member of the management was no longer

a mere official: he was a real, live worker. Where should he go? Should he study in the Planning Institute, or take a technical course?

Alexashka decided to continue his studies in the Planning Institute and become a highly-skilled co-operator.

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