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USSR Industrial Development
SOVIET CHEMICAL MACHINE BUILDING
No. 25

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USSR Industrial Development

SOVIET CHEMICAL MACHINE BUILDING

No. 25

This serial publication contains translations of selected articles on chemical machine building in the Soviet Union, on the specific subjects indicated in the table of contents. Complete bibliographic information accompanies each article.

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MEANS OF PROTECTION AGAINST CORROSION
FOR CALCIUM HYPOCHLORITE EQUIPMENT

Following is the translation of an unsigned review article in the Russian-language periodical Referativnyy zhurnal (Abstract Journal), Special Issue 47, Chemical and Refrigeration Machine-Building, Academy of Sciences USSR, No. 1, January 1963, page 2.

1.47.2. Sposoby zashchity ot korozii oborudovaniya dlya polucheniya khlornoy izvesti (Means of Protection against Corrosion for Calcium Hypochlorite Equipment), KUKSO, V. M., Vestn. tekhn. i ekon. inform. N.-1. in-t tekhn.-ekon. issled. (Journal of Technical and Economic Information of the Institute for Technical-Economic Research; State Committee on Chemistry under the USSR Council of Ministers, 1962, No. 2, 48-51.

Various means are examined for preventing corrosion in a Backman chamber in which the chlorination of slaked lime occurs, a process used at the Novomoskovsk chemical combine. The most reliable means of protecting the scrapers and traverses of the mixer appears to be coating with

polyebonite rubber (Brand No. 1751), with two layers of 1.5 mm thickness on glue No. 2572. Also effective is to replace threaded joining of the scraper to the traverse by welded joining following cleaning with sand. On the basis of the study of the effectiveness of the various means of protecting concrete from the effects of chlorine in the presence of moisture, a new chamber was devised, cylindrical in form, the walls of which are coated with acid-resistant brick with diabase mortar. The upper cover of the chamber and the dust pan, not being subject to corrosion, are of reinforced concrete. The concrete surfaces are painted with lacquer KhSL in 10 layers; the metallic beams of the cover and the dust pan are coated with rubber. On the outside, the walls of the chamber are covered with slag felt and are plastered. Rubber-coated pans and beams are used in place of concrete-coated ones. To the lower surface of the pan, divided into sections for cooling, is welded a channel, in the form of a coil; to the ends of this are welded nozzles. Each section is coated with rubber No 1751, of thickness 1.5 mm, with vulcanization in an autoclave. The nozzles of all the sections are joined (welded) by coated crosspieces. Such pans are characterized by high

heat-transfer coefficient and corrosion resistance. In the chamber are set up mixers of altered construction. The article is accompanied by 4 illustrations and a bibliography of 2 entries.

6277
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AN AUTOMATIC ROTOR LINE FOR
PRESSING ARTICLES OF PLASTIC

[Following is the translation of
an article review by N. Milenina,
in the Russian-language periodical
Referativnyy zhurnal (Abstract
Journal), Special Issue 47, Chemi-
cal and Refrigeration Machine-
Building, Academy of Sciences USSR,
No. 1, January 1963, page 1.]

1. 47. 411. Avtomaticheskaya rotornaya liniya
dlya pressovaniya plastmassovykh izdeliy (An Automatic
Rotor Line for Pressing Articles of Plastic), Boyarkov,
F., from the collection Mekhaniz. i avtomatiz. proiz-va
na predpriyatiyakh Mosoblsovnarkhoza (Mechanization and
Automation of Production at Industrial Enterprises of
the Moskovskaya Oblast' Sovnarkhoz), Moscow, 1962, pp.
7 - 10.

At the Orekhovo-Zuyevo Karbolit Plant, which
produces mass products from plastics, an automatic rotor
line has been introduced. This line is based on the

principle of the continuity of a transport-technological flow with which all the technological operations are accomplished in the process of movement of the mechanism, the pressed material, and the products. The basic units of the line are operative rotors with blocs of instruments. Each rotor performs a single definite operation. The line consists of two groups of rotors, one for pressing and one for mechanical processing of the products (removal of burrs). The line is served by a single qualified attendant. One illustration.

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MISUSE OF THE FACILITIES OF LARGE
CHEMICAL MACHINE-BUILDING PLANTS

Following is the translation of an
unsigned article in the Russian -
language newspaper Komsomol'skaya
pravda (Komsomol Truth), Moscow,
5 March 1963/

(We begin our "raid" with the banks of the
Neva. Before visiting the Leningrad Plant imeni
Karl Marx, we go to some general stores.
The clerks suggest a choice of various ca-
pron, lavson and viscose fibers. "Go ahead,
they're good materials, by evening they'll
all be bought up," we are assured. There
is never enough synthetic fiber, and so we
are building new mills for synthetic and
artificial fabrics. The Plant imeni Karl Marx
makes spinning machines. How is its opera-
tion proceeding?)

"Our workers could turn out more machines for
the chemical industry," say the plant managers, "if our
capacities were not siphoned off on side orders."

Those on the inspection tour were themselves con-
vinced of this. What is being prepared, for example, in
Shop No. 3, the largest in the plant? Conveyers for

conveying glass, yeast dryers, equipment for pit loading, apparatus for insulators, etc. For the chemical industry such things have no meaning. The same impression was received at several other shops.

The visiting specialists estimated that one-sixth of the plant's time was given over to filling "non-chemical" orders, which involve considerable material resources, qualified personnel, designers and planners.

Not once have the economic directors or the social organizations of the plant protested against this "compulsory assortment." But the USSR Gosplan hangs on firmly to this enterprise, which has remained a "Cinderella" upon which any assignment can be unloaded.

Meanwhile, both in the Gosplan and the Sovnarkhozes, the Plant imeni Karl Marx is called a specialist in chemical equipment production. What a fictitious specialization!

Recently the Cherkassk Artificial Fiber Plant turned to the Gosplan with a request for 70 spinning machines. Learning this, the Leningrad plant agreed to produce the equipment, but the Gosplan intervened. Hence the paradox: chemical orders get a red light, other orders a green one.

So far as the Leningrad plant is concerned this sort of planning has become systematic. And the situation continues to become more intolerable. More and more side orders are being dumped on the Leningrad plant. The personnel don't want to remain in their Cinderella status, which is an injustice. In technical equipment, in qualifications, the plant is really a "princess" of chemical machine-building; it is not a hireling of other branches of industry.

To achieve its rightful status, no magic is necessary; it is only necessary that certain of the Gosplan people advance their ideas towards the modern era.

(What about the "compulsory assortment" in other plants? Let's look in on plants actually called "Khimash" and see what they are producing. — Participants in this tour were in the Komsomol committee of the plant for chemical machine-building in Penza).

Part of the day the committee members spent in answering letters from plants. To suppliers of "big chemistry, who complain, and demand, and grumble — "supply equipment more rapidly," to which the Komsomols reply, "everything doesn't depend on us." The builders, of course, again insist on their own. Squeezed dry of

its resources, the Penza machine-building plant still tries to supply the chemical producers, and in fact it successfully fulfilled its chemical machine output plan for last year.

But it appears that the plant is working for the chemical industry at half power, and that many chemical orders could be filled if it were not struggling under the burden of side orders.

The Penza plant has fallen into the bad graces of the Vserossiyskiy Sovnarkhoz. The latter overloads the plant with the preparation of various articles which are of no concern to the chemical industry.

Up to now the plant has been producing large-diameter rings for the Privolzhskiy Sovnarkhoz, Kuztekstil'mash Plant. Producing these rings requires vertical boring and turning machines, so necessary for the production of chemical equipment. In 1961-1962, on the order of the Vserossiyskiy Sovnarkhoz, the plant had to produce dies for the Salavat machine-building plant, under the Bashkirskiy Sovnarkhoz. So far this year the Penza plant has received "nonchemical" orders amounting to

100,000 rubles.

Penskhimmash has been in existence slightly more than 10 years. This is a specialized plant which should be producing chemical equipment weighing many tons; yet every year the Vserossiyskiy Sovnarkhoz, the Soyuzglavkhimkomplekt, and the RSFSR Glavkomplekt assign to it a multitude of articles weighing no more than 500 kg. It is a bitter joke to see powerful cranes transporting such trifles—as we would say, samovars. These dwarf products hobble the giant, who cannot take a full step forward.

Is this economical planning? The articles now assigned to Penskhimmash can be made at small factories — why make them here? Why shoot crows with cannons?

(Penza has a neighbor in Tambov, another of the chemical machine-building industry's flag officers. Chemical plants have it in for the local Khimmash Plant, to which they bring orders, then take them away).

"We remember our duty," said one of the inspection tour, plant director Potapov, "but just put yourselves in our place..."

Then this director talked about the same thing that

bothers Plant imeni Karl Marx and the Penzakhimmash Plant; they are broken up into parts, so that one's specialized plant is no longer specialized but just a Jack of all trades.

One after another orders reach the plant from the managers of the Tambov Administration for the Machine-building Industry — Director I. Busygin and Chief Engineer M. Ogolev. They demand on-schedule fulfillment of any order for any consumer under their direction. But the trouble is that none of the orders have any relationship to chemical production equipment. For example, the plant gets this call:

"Make a distillation unit for Pharmacy No 3, and a disk for the liqueur-vodka plant.

"Excuse us, we're producing for major chemicals and the plan is barely being completed."

"A plan is a plan," raps out the telephone voice; "make the still, all the same."

And so, Khimmash is busy making stills for pharmacies, forming castings for the Michurinsk meat combine,

preparing gears for washing machines, repairing electric motors for a laundry trust, and turning out bronze bushings for the Dormoststroy trust.

Just in the past few months the plant has filled more than a hundred orders having absolutely no connection with the manufacture of chemicals.

This is not an exaggeration. These errands run for the Sovnarkhoz are costing the state plenty of money. As a rule, during the first 20 days of the month the plant turns out less than one-fifth of the monthly volume of production; during the last 10, all the rest. The intolerability of the situation shows itself in the quality of the basic products. For example, nearly all the forms prepared during the past year for the Omsk Tire Plant have imperfections, with certain parts missing.

Distillation units, gears, machines for the laundry trust — all these are simple to make. To produce them on the most technologically advanced equipment is a violation of common sense.

No one would drive nails into a telephone cable. Why do the managers of the Tsentral'no-chernozerniy Sovnarkhoz do so, figuratively speaking, to Khemash?

(What follows is the report of the "raid" from Sverdlovsk, an industrial center of the Urals and site of one of the oldest and best known chemical machine-building plants in the country — Uralkhimmash .)

Once in the heavy apparatus shop a welder busy on a gigantic cylindrical aggregate crossed out the letters UZKhM (Ural Chemical Machinery Plant) and wrote in with chalk UZTKhM (Urals Heavy Chemical Machinery Plant).

That's the way workers show their attitude to the prolonged disputes about the specialization of the Uralkhimmash Plant. If it could be done, this would have represented a one-word erasure of the compulsory assortment imposed on the plant.

The plant prepares roller conveyers for rolling mills, brushing-washing machines, and corrosion baths for sheet iron. These items account for 12 percent of the volume of production.

What does 12 percent mean to Uralkhimmash ? It means the loss of hundreds of new electrolyzers, vacuum filters and other aggregates, as well as of machines to

go into new chemical plants.

"Compulsory assortment" is imposed on this plant by the Sredneyral'skiy Sovnarkhoz and the marketing organizations Soyusglavmash and Rosglavmashnabsbyt. These and others do not take into account the plant's specialization. They proceed from the requirements of all branches of the national economy. Along with this the plant managers, Kuramzhin and Chernogov, don't have enough principle to defend the interests of major chemicals production.

Uralkhimmash is making aggregates for compressor equipment, now produced by the Kazan' Compressor Plant. The latter has at its finger tips just such aggregates. The Kazan' plant, however, are reluctant; for it doesn't have a special electroeroding stand, though there is one at Uralkhimmash'. Nothing stands in the way of shipping this stand to Kazan'. And a transfer would certainly be made, if these aggregates did not represent "profitable" production. But their production has been well established, and each one costs thousands of rubles, helping to extend the plan "in bulk"...

And so, it happens that side production is imposed

while plants qualified to do such work take the product. And the needs of major chemical production are tossed aside....

(Now let's take a look at Tashkent. The Uzbek plant for chemical machine-building was considered one of the best enterprises of the Respublikanskiy Sovnarkhoz. Workers come from the Ukraine, the Urals and Siberia to study with the Uzbek machine-builders. The plant has worked rhythmically, always overfulfilling its plan).

At the moment the Uzbek plant for chemical machine-building has "run aground", gone backwards. And the fault of this is "over-plan" and "extra-plan" orders.

The enterprise must be specialized for the output of heat-exchange apparatus. But year after year the USSR Gosplan has limited the plant's output of such apparatus, since there is an excess of side orders. In 1962 these amounted to 100,000 rubles; this year, so far, to 220,000 rubles.

The situation has been aggravated by the managers of the former Respublikanskiy Sovnarkhoz. These persons have converted the enterprise into a producer of nonstandard equipment. Uzbekkhimmash was ordered to produce special

pipes, just because Uzglavvodstroy (a water-supply agency) needed them. Later one of the main administrative boards needed pipes, and Order No. 350 was dispatched by the Administration for Machine-Building of the Sovnarkhoz, with a short-order demand for special metallic water conduits in 384-meter length.

The machine-builders have shown that the filling of this order disrupted the production of chemical equipment. The sense of the machine-builders was rebuffed, and the good of everybody sacrificed for the needs of some communal workers.

Chance orders of this sort upset the operation of the very largest chemical machine-building enterprise. The worker has to shift from one product to another, thereby lowering his productivity, bringing about machine stoppages, and depriving the personnel of a clear perspective on the work. In the fifth bay of Shop No. 1, 30- and 50-ton cranes stand idle; and highly qualified specialists are occupied with the preparation of simple tanks. "How long," ask the workers, "are we going to be doing odd jobs?"

We think that in many other enterprises of the

chemical machine-building industry the situation is identical: they are being overloaded with incidental orders. Many economic managers have set about making chemical machine-building plants into "playthings".

The planning organs, the National Economic Council of the USSR, must use all measures to assure that enterprises of our industry devote their full energy to supplying the major chemical industry.

(The "raid" was participated in by monitors of Komsomol'skaya pravda S. Gusev, electric car operator of Leningrad, Ye. Usanov, noted general director of the Leningrad Union for the production of light industrial machines, G. Sorokin, Leningrad University student, A. Chebushev, welder of Sverdlovsk, I. Khvatov, engineer-designer of the All-Union Scientific-Research Institute for Rubber-Technical Machine-Building, Sh. Gataulin, secretary of the committee of Uzbekkhimmash, and others — in all, 32.)

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**RUBBER-RECLAIMING EQUIPMENT FROM
THE FRUNZE PLANT IN SUMI**

Following is the translation of a citation from the Russian-language newspaper Pravda Ukrainy (Ukrainian Pravda), Kiev, 14 March 1963

The Frunze plant in Sumi has begun assembly of a rubber-reclaiming machine to be delivered to the Volzhsk chemical combine.

Delivery is scheduled for the second quarter, and the Volzhsk people have asked for an earlier date. Aleksey Petrenko's communist labor brigade has promised to finish the assembly work two months early — in March.

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PRAISE OF KIEV BOL'SHEVIK CHEMICAL
MACHINE-BUILDING PLANT

Following is the translation of an unsigned
article in the Russian-language newspaper
Trud (Labor), Moscow, 1 March 1963

The Kiev Bol'shevik Plant is one of the largest suppliers of specialized equipment for use in chemical plants. Following the initiative of the Lugansk machine-builders, the workers of the Kiev enterprise have resolved to make their contribution to large-scale chemical production and have assumed new obligations for early delivery of machines to newly built chemical plants. It has been decided to deliver equipment to the Yaroslavl', Kirov and Omsk Tire Plants, the Berezniki Soda Plant and the Volga Chemical Combine several months ahead of schedule. Rubber-heating mills will be supplied to the Yaroslavl' enterprise during the first quarter, and the order will be completed in the second quarter. High-pressure rubber mixers, etc., will be included.

Competition in fulfilling the new obligations has sprung up in the Bol'shevik Plant shops. The steel-casting and mechanical assembly shops are ahead of the rest. B. Didinskiy's communist labor brigade is fulfilling its obligations by 150-160 percent, and drill-operator A. Chasnovskiy and others are performing excellently.

The workers of the Bol'shevik Plant have turned to other machine-builders with a request to re-examine their delivery schedules and to assist in the successful filling of outstanding orders for the big chemical producers (the Novokramatorsk machine-building plant, the Ingonsk Plant imeni Oktyabr'skaya revolyutsiya, the Khar'kov

Electromechanical Plant, the Sverdlovsk Uralslektroapparat plants and others).

The office of the Kiev industrial executive committee of the Ukrainian Communist Party has approved this initiative of the Bol'shevik plant workers and recommended to enterprises of Kiev Oblast engaged in this type of production that they strive for early deliveries.

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ACTIVITY OF THE URALKHIMMASH CHEMICAL-MACHINE-BUILDING PLT.

Following is the translation of an unsigned article in the Russian-language newspaper Sovetskaya Rossiya (Soviet Russia), Moscow, 1 March 1963, page 1.

Answering the patriotic call of the Lugansk and North Donets construction and assembly men to further competition for ahead-of-schedule release of chemical equipment, personnel at the Ural'sk chapter of the Order of Labor of the Red Banner have resolved to make early delivery of equipment during 1963 and to secure a saving of 500,000 rubles to the chemical industry.

They mean to make early shipments to 17 leading chemical plants for two months, and for the quarter to do the same for the Ufimsk Chemical Plant and the Lisichansk Chemical Combine.

As compared with last year, the output of diaphragm electrolyzers has gone up 1.6 times, vacuum-filters 1.7 times, centrifugal separators, 5.5 times, plate heat-

exchangers, 11 times; shipments to new plants were speeded up by 2-3 months.

In 1963 survey work on implementing industrial production and delivery of specialized equipment for the production of new forms of synthetic rubbers, polyethylene made under low pressure, polypropylene and synthetic alcohol will be conducted. In line with this, future specifications will be introduced to raise the service life of standard drum vacuum-filters, diaphragm electrolyzers, drying drums and rotary furnaces by a factor of two.

The plant personnel are also implementing measures for the intra-plant specialization of production on the basis of extensive use of normalized units and parts. Much effort is planned in the complex mechanization and automation of production processes. Two automatic lines are being introduced for the output of diaphragm electrolyzers; 28 percent of the plant's metal-cutting lathes are being equipped with high-speed chucks. The use of automatic and semi-automatic electric welding, machine shaping and bucket manipulators is being extended.

By economy in power and fuel consumption, lowered ^{and} losses from breakage, /decreased nonproductive expenditures,

it has been decided to save 40,000 rubles this year.

The personnel of the Uralkhimmash Plant are calling upon colleagues of the Leningrad Branch of the Scientific-Research Institute of Chemical Machine-Building, the All-Union Scientific-Research Institute of Electric Machine-Building, the Giprokauchuk and Giproplast Institutes, to cut down upon time required for working out technical documentation; and upon the workers of the Kishinev electric machine construction, the Pervoural'sk pipe, the Sverdlovsk rubber-products and the Kommunar metallurgical plant, to make new materials available ahead of schedule, to be used in the construction of the new technical items.

"Assuming new obligations," runs a letter from the workers of Uralkhimmash, "we turn to the workers of other chemical machine-building plants with the call to close ranks in socialist competition for ahead-of-schedule completion of tasks and the complex delivery of equipment to new chemical plants."

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ACTIVITIES OF THE KIEV BOL'SHEVIK CHEMICAL
MACHINE-BUILDING PLANT

Following is the translation of an article
in the Russian-language newspaper Pravda
Ukrainy (Ukrainian Truth), Kiev, 11 April
1963.

"The chemists and builders of Severodonets and Novyy
Rozdol recently came right out in Pravda Ukrainy with the
names and addresses of those (that is, chemical machine-
builders) responsible for holding up their work. Our own
plant didn't figure in this", said Comrade Kusnetsov, director of the
Bol'shevik Plant.
Kiev / On the whole we have fulfilled the quarterly plan for
production and delivery of chemical equipment. To the Yaro-
slavl' Tire Plant we have made an early shipment of shaping
rollers as well as two rubber mixers; to the Kirov Plant,
a granulator and "worm" machine; and to the Vol'shsk Plant,
four three-mill calenders. Nevertheless, we lag behind in
one small respect, and this we are correcting during the
present quarter.

Pre-May competition is underway at our plant.

Before May 1, Comrade Zatvornitskiy's mechanical assembly shop will produce a model of a new vulcanizer-shaper for the preparation of protective washers; also several machines for the automated line production of such washers. The workers of another shop, Comrade Kravchenko, are turning out a unit consisting of a sprayer and a vulcanization boiler.

Our personnel stand behind the suggestion of the Severodonets and Novyy Rosdol critics concerning continuous social control all the way from the planning institute to the finished product. This is a necessary function! Along with the planners of the Ukrainian Scientific-Research Institute for Plastics Machines, we shall discuss means for improving such continuous control and for increasing our contribution to the total effort.

In order to put our own house in order, we recently got the help of a group for furthering Party-state control, and also of Komsomols headed by a staff of chemists. These advisors number in the thousands, so that our production of chemical equipment now quite literally is subjected to a thousand scrutinizing eyes. ^{This, of course, is} /in the industry's best interest.

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INEFFICIENT MANAGEMENT AT THE SERPUKHOV
CHEMICAL MACHINE-BUILDING PLANT

Following is the translation of an article by V. Ivlev, special correspondent, in the Russian-language newspaper, Leninskoye znaniye (Leninist Banner), Moscow, 24 February 1963.

That wasn't why I visited the Serpukhov I-Okt'yabrya Plant. I had gone to find out how a plant producing equipment and spare parts for artificial and synthetic fiber combines had begun the fifth year of the Seven-Year Plan and what it had done and was doing to implement the decisions of the November Plenary Session of the Party.

All day I wandered around the shops, getting acquainted with inventory materials, chatting with folks. And almost everybody, whether at the end or in the middle of a conversation, came out with the same question:

"Did you hear what happened to our Lapshov?"

"Yes, of course..."

Lapshov was the former plant director. That he had been removed from service and given strict Party discipline, the men at the city newspaper had told me on my first day in Serpukhov. I knew how it had started. An addition to the plan had been noted at the plant. In the report they had included 8 incompletely assembled machines of Type "40-10". At the time Lapshov was in Moscow at a resort. Sensing the danger signal, Chief Engineer Sidorov gave the order to keep the machines out of the report. The Communists, having passed on this eye-wash, demanded punishment for the guilty. When the director returned from the capital he was reprimanded before a session of the Party bureau.

"You listen to these liars?" Lapshov demanded of the Party bureau secretary, Morgunov. "What's there to talk about when the addition has already been cut out?"

"About guilty parties and about measures for averting antistate behavior in the future. In a word, the meeting is obligatory."

"Oh, well, decide the matter without me. I'm feeling bad and I'm going to the clinic."

As is understandable, the Party bureau meeting wasn't held. It couldn't be held in the next few days. "Sick" Lapshov telephoned Morgunov and said;

"I've got a pass and ticket in my pocket for a quick trip, so in an hour I'm leaving Serpukhov."

The matter made its rounds, getting much publicity at the director-less plant. And, since you don't punish a fellow by mail, the Party bureau decided to continue its discussion of Lapshov when he should return.

The next session was stormier than the first. With some reason, other misdemeanors were laid at Lapshov's door. Finally, it was concluded that he was a bad director and a Party risk.

The Lapshov affair soon was discussed at a Party conference. Twenty-five Communists spoke up. Only three were for easing the punishment. All the others said that the Party bureau had proceeded correctly in having expelled Lapshov.

Lapshov's personal encounter had already got as far as a session of the bureau of the Serpukhov City Party

Committee. Taking into account his assertion that he had drawn the appropriate conclusions, the bureau decided that it would be possible to retain him in the party, having delivered a stiff reprimand and record on his behavior card.

It never occurred to me what Director Lapshov had come to. Why hit a man when he's down?

Nevertheless the notebook had already been filled with other facts. These told with surprising clarity that things were not in proper order at the plant, that numerous inner reserves lay idle. True, the January plan for total output had been met. But this had been achieved at a heavy price in lowered quality by means of an all-hands effort at the end of the month.

A lot of new plants for artificial and synthetic fiber are now springing up. For such plants, the X Okt-yabrya was obligated during the past year to supply 29 tortion-extraction machines of advanced design. The plant supplied just one; and even that one won't work because many of the parts were carelessly made.

Judging from the January results, our chemical pro-

ducers won't get the necessary number of machines from Serpukhov this year. Four units a month would be very little, and even this figure the plant is a long way from reaching. Last month only two machines were finished, and assembly had been started already in November. A big breakthrough in February? No, it would be impossible to start assembly of the routine "KV" machines before February 10.

So I decided to write about Lapshov's downfall, and the reason why it fell.

At the close of my second day at the plant, I was approached by a middle-aged man in the corridor of the administration section.

"Can we have a heart-to-heart talk?"

"What are you getting at?" I ask him.

"The whole place is full of rumors. Please listen to me."

And for three hours Lapshov reported on himself — what a fine, honorable and sensitive fellow he is. And if perhaps he did permit a few irregularities, it was all in

the interest of the work, all for the sake of output.

"I'm only a sacrifice to a bunch of trouble-makers, sore-heads. We've got a very dubious bunch here at the plant, you must have seen that yourself."

"But a majority of the Communists at the session came out against you."

"That means nothing. A session can be handled differently..."

So it was clear that Lapshov was still very much in the dark and had not reached any conclusions; no he wasn't one of those you don't hit when they're down. Also, a man who's got the worst of it has to start all over again, begin at the bottom, wipe off the smear with honest work, merit respect. Lapshov, however, was trying in every way possible to get a high command post; nothing below chief engineer of the plant was good enough for him.

I began to think, what got Lapshov into such a sad state?

Well, first of all, separation from the Party organization. He didn't even consider it his duty to fulfill

the decisions of the Party bureau and the Party conferences. The business of writing in extra machines was only a prelude to hitting him over the head with the truth.

Lapshov is a very self-righteous man.

"There can be only one boss at a plant, the director. Just be good enough take orders unconditionally."

In other words, despite his "let's confer," Lapshov was no manager.

Nor was his know-how in machine-building much to get excited about. He often made errors or advanced erroneous ideas. Once he came up with an idea for setting up an assembly line for painting containers. He invited the designers in and laid out his ideas without ever consulting with anyone beforehand. The project got underway, then just for show Lapshov called for technical advice. The chief engineer and the other participants wanted to express their opinion about the project.

"I didn't call you together for that," declared Lapshov, "but only to discuss how to put the project into effect. The whole thing was worked out under my direction, and I'm

confident of its fulfillment."

But this wasn't supported in practice. To a man the plant specialists declared it wouldn't work. Another principle was adopted in the design, and this meant that 60,000 rubles from the revolving fund went out the window.

Lapshov was mad at the workers. He only showed up in the shops to tell people off. His favorite expression was, "You don't want to work, why not resign and we'll get someone else."

He yelled at his subordinates, and resented even harmless remarks, taking sharp revenge for criticism. Once designer Siluyanov took the liberty to enlighten Lapshov's technical illiteracy. This was taken as insubordination, and he began to "take Siluyanov apart." An order was prepared for dismissal. Siluyanov was spared this injustice only by chance.

In order to discredit a worker he didn't like, Lapshov commonly adopted very dirty measures. This fact stirred up many of the men.

Once Lapshov ran to Chief Engineer Sidorov:

"I've found out that in my absence you improperly dispatched two heaters to the Voskresensk chemical combine. I've decided to hand this information over to the procurator."

"Go ahead and report, but first get the facts. I sent those heaters by order of the Sovnarkhoz."

A few days passed. Lapshov called Sidorov and declared he would have to go to the procurator.

"And what for?"

"Just come to see me, you know what for."

Sidorov went to the director, and said that he was going to the procurator's office, asking incidentally whether the director has written about the heaters.

"I wanted to," Lapshov said, "and had already written, but then considered. If you wish, I'll show you the letter."

Going to the safe he pulled out a prepared libel. Lapshov had sent to the procurator's office an anonymous letter about Sidorov.

Lapshov considered the plant his private preserve, tolerated gross violations of finance procedure, incited people to forgery. In the auto pool he hired a light car for payment by the hour, for his personal use. In addition, he gave the driver a second payment, putting him down as a welder. Several other such "dead souls", resurrected by Lapshov, can still be seen around the plant.

It would seem that now that so many ugly things have come out, Lapshov would surely take thought and begin to make something out of himself; but everyone thinks he has chosen to remain as he was, gunning for a big job. To think, the lesson didn't do any good.

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CSO; 1830-D

LACK OF SPARE PARTS IN THE CHEMICAL INDUSTRY

Following is the translation of an article by A. Fedyaikin and F. Romanov, Engineers, in the Russian-language newspaper Izvestiya (News), Moscow, 30 March 1963, No. 13, p. 337

It used to be that enterprises in chemical machine-building would supply spare parts in definite numbers to their consumers, this being controlled in a centralized manner on a fund basis. But now, for one reason or another, many plants have been excused from this obligation — some entirely, others partially.

Centralized delivery of spare parts to the chemical industry is dropping off.

Production of parts dropped nearly by half from 1958 to 1963, just when production chemical equipment itself appeared in increased quantity.

Machine-builders, as a rule, do not fill orders for nonserial spare parts, or for parts and units for machines out of service. But if such machines are to operate

they must be serviced. Why throw away an expensive installation just because some part is lacking?

What is the reason behind this situation? Mainly it goes back to the fact that the economic plan for spare parts production is regarded as integral with the chemical industry and not as a separate enterprise. The USSR Gosplan presumes that the Sovnarkhozes themselves fix upon what sums are to be expended on parts. Yet the funds allotted are often so small that they frequently fail to cover the needs of the Sovnarkhoz in chemical equipment. Therefore, spare parts are either not ordered at all, or are ordered in miserly quantities. Moreover, spare parts are needed by the Sovnarkhoz in definite products lists, whereas the producer plans their production on a money basis. And so it happens that the machine-builders are trying to make only those parts which cost less and do not require too large an investment in labor.

In chemical plant warehouses at the moment there are large stores of unmarketable, and essentially useless, spare parts. At the same time when equipment would require protection, without stoppages and with a guarantee of program fulfillment, chemical industry workers are often deprived.

of a considerable portion of the parts necessary for use in their repair work. This, of course, is expensive and undesirable.

In the case of steel and iron castings, rolled metal, wire, electrodes and similar articles so extremely necessary for repair, supply to the chemical industry is also in a bad way. Only in the case of Gor'kiy has there been some success in organizing centralized supply to the chemical industry in the way of forgings and electrodes. In Perm' (Molotov) and Yaroslavl', this fine example has not been followed.

We should pay particular attention to the problem of anticorrosive and defensive materials. Their use greatly increases the service life of equipment and prevents untimely stoppage of operation. Chemical producers are well aware of the importance of this matter; they are setting up special shops, units or units in the struggle against corrosion. But the matter is really a question of the lack of organized delivery of defensive materials — porcelain and faolite pipes, poly-isobutylene, polyfluorethylene resin, polyethylene, tars, acid-resistant glass fiber, bakelite lacquer, etc.

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THE GENERAL SITUATION IN UKRAINE
CHEMICAL MACHINE-BUILDING INDUSTRY

Following is a translation of an unsigned
article in the Russian-language newspaper
Rabochaya gazeta (Worker's Gazette), Kiev,
16 April 1963/

These are the plan-fulfillment indices for Ukrainian
chemical machine-building for March and for the first quar-
ter of 1963 (percent of plan):

<u>Sovnarkhoz</u>	<u>March</u>	<u>1st Quarter 1963</u>
Donets	103.2	116.6
Dneprovsk area	151.9	102.4
Khar'kov	102.6	101.5
Chernomorsk	102.2	101.3
Kiev	109.0	100.3
All Ukraine	107.8	101.8

Over the past two months the situation of many plants
producing chemical equipment has improved considerably, the
plan being overfulfilled in February at 106.9 percent, and in
March at 107.8 percent, together with an elimination of the
lag present at the start of the year. The following plants

have achieved overfulfillment in output of chemical equipment during the first quarter: the Berdichev Progress Plant, the Kiev Leninskaya Kuznitsa Plant, the Korostenskoye Chemical Machine-Building Plant, the Svessk Pump Plant, the Slavyansk Ceramics-Products Plant, the Lugansk Plant imeni Oktyabr'skaya revolyutsiya, and some others.

Successfully fulfilling the plan for the first quarter were the Kiev Bol'shevik plant, the Sumy Plant imeni Frunze and the Pavlograd Chemical Machine-Building Plant.

Along with general fulfillment of the plan in chemical equipment, one cannot pass over the poor showing of certain lagging plants, such as the Slavyansk Coke-Chemical Equipment Plant and the Fastov Krasnyy Oktyabr' Plant. As to the inadequate performance of the Slavyansk Plant (the director is a Comrade Panasenko, and the secretary of the Party organization is a Comrade Mima), this has been reflected in the chemical industry several times during the past year. The prolonged slump of the Slavyansk plant for coke-chemical equipment is a matter of concern for workers of the Donets Sovnarkhoz; due measures must be taken in the organization of filling chemical industry orders given to the plant. Unfortunately, no forward step has yet been taken; the plan

for production was fulfilled by only 71 percent in January, 81.6 percent in March, and 74.8 percent for the first quarter. Especially bad has been the filling of orders for large chemical plants: out of 95 units of equipment on order for the first quarter, only 9 have been delivered. Isn't it time something was done about improving the responsibility of the authorities at the Slavyansk Plant?

The Fastov Krasnyy Oktyabr' Plant (Director Korol'kov and Party Secretary Organization Skidalenko) has not fulfilled its first-quarter plan for chemical equipment. The personnel of this plant assumed brave obligations in meeting production quotas for large chemical consumers, but are not fulfilling them. The first-quarter plan for chemical equipment has been met by only 93.4 %.

In the first quarter of this year, there has been inadequate progress in specialized chemical equipment production — we mention the Sumy Plant imeni Frunze (Khar'kovskiy narkhoz), the Fastov Krasnyy Oktyabr' Plant (Kievskiy Sovnarkhoz), and the Siyehzhnyansk Chemical Machine-Building Plant (Donets Sovnarkhoz). At these plants the plans for quarterly investments have not been fulfilled.

Workers at chemical machine-building plants, the

Sovnarkhozes and the Ukrainian Sovnarkhoz must grapple intelligently with the casues for plan failure, liquidate their debts to our chemists, and guarantee early delivery of equipment for the big chemical producers. It is necessary to assume all necessary measures for the acceleration of the work of specialized machine-building plants, with due attention given towards mobilizing productive forces behind chemical equipment production.

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INADEQUATE MECHANIZATION AT THE SARATOV
MACHINE-BUILDING PLANT

Following is the translation of an article by Yef. Klenov and F. Kokh, special correspondents, in the Russian-language newspaper Ekonomicheskaya gazeta (Economic Gazette), No 19, 11 May 1963, page 29.

On the white pediment of the plant administrative building are clearly delineated massive, time- and wind-darkened bas-reliefs — manly figures of workers, meager inscriptions. In them is the militant history of the plant, the sacred memory of the troubled, romance-shrouded years of the Revolution, and of the perilous battles and the first victories.

1898: outstanding workers of the Saratov RR shops, now the site of a heavy machine-building plant, organize the first Social-Democratic group in the world... Bloody 1905: The first skirmishes with the regime of tyranny and enslavement... The militant seventeenth year: hundreds of workers enter the ranks of the Red Guard...

Unforgettable 1919: in these shops is organized one of the first Communist subbotnik groups in the world...

Here the glorious revolutionary traditions are not merely studied, they are carried on. And there is romance of its own kind in the figures of reports and summaries which testify to the successes of the plant's personnel on the path of communist reconstruction.

The Saratov machine-builders serve the foremost sector of our economy — power, chemicals, petroleum — and serve it well. Only two facts need be mentioned. This year the workers of the plant are prepared to cross the last barrier of the Seven-Year Plan and in volume of production to move up to the 1965 level. The second fact is this: in point of socialist competition, the Saratov Plant has been awarded first place in the Privolzhskiy Sovarkhoz.

But the genuine worth of today's success, without doubt, is to be perceived not only in comparison with the past, but also with the tasks of the future. One of the latter is stated thus in the Program of the Communist Party: "On the basis of the development of machine-building in the first ten year period, complex mechanization will be im-

plemented in industry, agriculture, construction, transport and public services. Complex mechanization leads to the liquidation of manual loading-unloading operations and to the elimination of gruelling labor in the basic and auxiliary productive processes."

Now let us take this point of view, the position of 1970, in an attempt to survey the situation with the Saratov machine-builders. Let us compare the existing rates of mechanization at one of the foremost enterprises of the Sovnarkhoz with those which are necessary for fulfillment of the task proposed by the Party.

The preparation shop. Here four workers are embroiled around a press. Under powerful pressure, thick steel disks are being worked down into foil. Beautiful. But it is sickening to see the heavy labor required to drag the disks up to the press and to remove the finished product.

Let's move on to the second bay. Here three men are loading trucks with bolts and nuts. Once it is filled to the top, they try to move it away, but can't do it. They call for the help of two others, taking these men

away from their work. With "One, two, go!" the truck finally moves out of the shop.

Now the thermal section. A workman is raising the door of the oven with difficulty, dragging a 70-kg shell. Here all three furnaces are loaded manually.

In the assembly shop there is little automatic welding equipment, which would facilitate the assembly of heavy petroleum equipment. Now, in point of mechanization and automation of welding operations, this plant occupies one of the first places in the entire economic region; the trouble is simply this, that the mechanization of numerous auxiliary operations is far below that achieved for the basic operations.

More than 50 percent of the workers here are engaged in the so-called auxiliary services. Forty-four percent of all operations performed in the shops are done manually. Yet for several years there has been no significant effort to lower these figures, and it is not so long a time until 1970.

Of course, we can't put the entire blame for the low level of mechanization on the employees of the Sara-

tov plant. A good deal of the problem relates to outside factors; the enormous (more than 800 items) and varied production nomenclature, the restricted amount of working space, the complete absence of warehouse facilities. In our conversations with them, employees of the plant itself, of the Sovnarkhoz and of the Saratov Industrial Executive Committee of the Party, objected to this objective circumstance:

"You can't help the situation, it's individual production...."

There is no doubt that where output appears in the form of large series, the problem of mechanization is simpler; while in the case of individual-production plants it is more complex. But is the engineer to remain impotent in the face of this barrier? One recalls with what trepidation certain managers of industry regarded the scheme taken up at the Tambov boiler-mechanical factory: to set up closed mechanized line production in an individual-production plant. But the idea turned out to be feasible, and the "stream" took root, not only at the Tambov factory but at many similar enterprises throughout the country.

The secretary of the Party committee of the

Saratov plant for heavy machinery, V. Kravchenya, is an experienced production man who has served as deputy to the chief technologist for a long time. Scrupulously and with profound knowledge of the operation, he discusses unresolved problems of mechanization in his shops. The only strange thing is that the stream of criticism is directed unceasingly at other organizations — committees, the Sovnarkhoz, institutes. If we are talking about, say, about a multispindle drill press, something that is just a matter of technical capacity, the situation is understandable. But if it is a question of, say, removal of shavings, it is not understandable.

"No matter how often we try, there's no getting together with the institutes," states the secretary. "And surely it is possible to rig up some sort of drilling apparatus."

Possible, of course. But why don't the machine-builders avail themselves of the experience of their neighbors, for example the Saratov plant for heavy gear cutters? There shavings are removed, maybe not in a perfect manner, but at least in a simple manner: they are accurately shunted into receptacles and every hour-and-a-half before

next shift they are removed from the shop.

"Our shavings are of mixed type," says Kravchenya; "you don't shove them into a box."

Actually, "mixed" shavings — thick steel ribbon from cutting operations — cause a lot of trouble. They are capricious material, moving according to the curve of the metal and cutting everything in their path. It happens that they sometimes cut a workman. But a simple remedy is well known — the shavings column. Why isn't it used here?

And something else. Apparatus produced by the Saratov machine-builders are intended to stand colossal pressure. Therefore the heavy nuts on the covers must be tightened to the limit. Human strength isn't adequate for this, so the nuts are tightened with the help of.... a bridge crane. The plant has concluded a negotiation with the polytechnic institute for constructing a special tightener. For this, 2,500 rubles were spent, but a suitable instrument hasn't been received. Yet, have the plant engineers tried to solve this problem on their own? No.

"Do-it-yourself" is not very highly regarded in

this plant, and this is a pity, for the use of local capacities is an important factor. And here for the Party committee of the factory is a wide field of activity, a worthy object of stubborn, painstaking work — educational work which doesn't always show up in reports, but often leads to more useful results than mere "measures" adopted from time to time.

In the Party committee we have discussed with pride the creation of an institute for technical progress at the plant; and also a recent conference on the theme "Forms of participation of the masses in the technical perfection of production." Here, however, is the problem: how is theoretical knowledge acquired in lectures and seminars to be tied in with the concrete tasks in mechanization with which we are faced daily and hourly? To judge on the basis of certain facts, such coordination is little developed, and here is an example.

The thermal workers proposed to refurbish the furnaces, making them of "through" type by putting doors on both sides. A simple cantilever permits mechanized lift of the bottom plate with its parts, while a pneumatic or electric push rod makes loading easier. It pulls the

bottom plate with its products from the furnace. The idea is simple, and, significantly, already proven in practice. Chief Engineer V. Ivanov, however, under various pretexts, has held up its realization. So here we know who is impeding progress.

If this were the only instance...but there are a number of others. We learned of the history of eight improvement suggestions made in 1961. Some of them are quite valuable. These were "adopted", but there has been no hurry to put them into practice; moreover, some have have been made more complex. Just recently the intervention of the action commission of the Committee for Party-State Control has put an end to the procrastination; the unutilized suggestions have been retrieved from the dusty archives.

Possibly, it is precisely here that we should look for the cause of the fall-off in innovation activity at the plant. Since 1959 the number of innovators has dropped from 180 to 120, the number of workers making suggestions from 94 to 51 (nearly by half). The number of suggestions adopted has dropped with gloomy regularity from year to year.

Who, more than the Party committee, should impart to the factory toilers a burning incentive for improving plant production, and, on the other hand, instill in the engineers and the supervisory personnel a respect for the technical creativity of the workers? It might well be that before long we could stop worrying about the nut-tightener, the mechanization of shavings-removal, and the dozens of other problems, great and small, which remain unresolved up to now. Our body of workers is talented, qualified, and a quarter or more are communists. It is time to give support, to direct, and, if necessary, to correct — and with workers such as we have, we can, as the saying goes, move mountains. Yet how often do our enthusiastic impulses towards improvement die out, as capable suggestions are ignored!

We were conducted through the mixing yard by N. Petrakov, who is head of the technological office of the casting shop. Once again we got the picture of the thing that has hung over the Saratov plant since the last century. Among a disorderly pile of scrap metal stood an antideluvian crane. Here were needed remarkable physical forces to sort the pieces of scrap from the general mess, drag them under the drop hammer, and finally take them

off to the point of recasting. But you don't always find volunteers for such work.

"Summer comes, no luck; fall and winter, the same. Just try to clear a road in snow or mud through this iron mess. Of course we lose money. We're supposed to use no less than 60 percent scrap in our work. But how can anybody do that? Plenty of times we use only 30 or 40 percent."
— Thus Petrakov.

How can the Party organization of a leading industrial enterprise tolerate the existence of this fragment of the past century, be reconciled with heavy, sometimes intolerable, labor? The foundry men don't want to be reconciled with it. They propose to take off two or three Sundays, and once and for all clear a road to the charger, asphalt it, and put a truck into service. But who supports their idea? At the present moment, nobody. The point in question has been brought up for several years in the plan for organizational-technical measures; normally, it is deferred until the fourth quarter, then deferred until the following year.

Here, a word about the plan for organizational-technical measures. It is compiled, to say the least,

without much thought. Here we see "Plan transport means in shop No. 6/10", and beside it the notation "Removed as being unrealistic." Opposite another plan we read "Time of putting into effect will be determined after examination of feasibility by the Soviet of the NTO". And this, after confirmation in all the factory institutes, and after more than three months have passed...

But these things don't comprise the gist of the matter. The main point is that the plant's annual plan for organizational-technical measures is in no sense a part of the over-all program for complex mechanization of production. Isn't this the simple reason why that program isn't being put into effect?

"We haven't thought much about it" — V. Kravchenya of the Party committee spreads his hands — "in earnest, to be frank; the problem requires deep and many-sided consideration. Nature takes its course..."

There is a grain of truth there. We often speak and write of how "nature takes its course" with directors and chief engineers of factories. It is time to pose the question seriously of the position of the plant's Party committee. Is its participation in numerous commissions really

necessary? Are the almost daily hours-long meetings and conferences in the rayon committees, which take from the secretaries, a great amount of valuable time which could be used for the main work, really necessary?

Somehow or other, a strange situation is arising. The Party meetings and the sessions of the Party committee often take up questions of the mechanization of production. Party documents devoted to this problem are studied at seminars and in reading groups. The plant communists are well aware of the problem posed before the Party for the past ten years; but they hardly recall the formulation of the Program of the Communist Party of the Soviet Union, in which it is stated that automation and complex mechanization serve as a material base for the gradual transformation of socialist labor into communist labor. But all of this great and useful propagandist work has been divorced from the concrete problems of mechanization of actual construction processes. That which should be a unique, strongly soldered whole, has been dismembered.

Of course, we can and should point out the objective difficulties of mechanizing the plant, and we can and should firmly demand their elimination. But it is out

of the question to wait with folded hands for a ready decision to be delivered on a silver platter.

The fathers and grandfathers of the Saratov machine-builders, whose manly faces stare from the bas-reliefs, may justly regard with pride the many successes of their successors. That which they dreamed and struggled for is close to realization. To finally complete it, to create a material-technical base for the new and most justified society, has been left to us. This is a great joy and a great responsibility, of all and of each. Only common resources, profound understanding of the problems of concrete economics, and stubborn purposeful work, will bring to flower the wonderful tree which we all nurture.

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CHEMICAL MACHINE-BUILDING IN THE LENINGRAD AREA

Following is the translation of an article by G. Abaimov, Manager of the Production Administration of the Sovnarkhoz, and Engineers Ye. Tkachenko and S. Gryaznov; in the Russian-language newspaper Lenin-gradskaya pravda (Leningrad Truth), Leningrad, 13 March 1963.

In recent years in the Leningrad Economic Region much effort has been put into establishing a branch of industry which is new to our city — chemical machine-building. One need only say that in 1958 the industrial enterprises under the Sovnarkhoz contributed barely more than a twentieth part of chemical equipment required by plan for 1963 (and most of this was contributed by the "Metallist" plant, in the form of machines and apparatus for enterprises producing rubber-technical articles).

Having no specialized plants at its disposal, the Leningrad Sovnarkhoz has assigned the production of

complex equipment for large chemical plants to about 20 large factories, among them the Baltiyskiy, the Admiralteyskiy, the Zhdanov, the "Bolshevik", the Izhorskiy, and so on.

Early in the game, these plants were naturally beset with great difficulties. There was no experience in producing chemical equipment, and many of the plants were poorly equipped for such activity. But the first obstacle was the lack of qualified personnel, persons who could translate into reality the plans obtained from specialized institutes and other consumers of chemical equipment. Taking this into account, the Sovnarkhoz in 1959 set up design offices for chemical equipment at a number of plants.

Despite these difficulties, the Leningrad machine-builders were able to produce complex chemical apparatus: high-pressure columns, packed and plate columns, separators, filters, vacuum-impregnation apparatus, and viscose apparatus.

The machines and apparatus produced in Leningrad are now being used in the shops of the Nevinnomyssk nitrogen-fertilizer plant, the Shohkinsk chemical combine,]

the Rustav and Daugavpil's synthetic fiber plants, and in Rumania, Hungary and Bulgaria.

These achievements have been possible thanks to the specialisation of factories for the production of definite forms of chemical equipment. Leningrad industry has made extensive use of the progressive technology: welding of thin-wall pipes in a carbon dioxide medium by infusible tungsten electrodes, argon-arch welding of stainless steel and light alloys, electroslog welding of metal of great thickness, and other progressive methods.

But these achievements should not mask the problems which still remain to be resolved.

At the moment, shipyards are taking part in the construction of chemical equipment. Their contribution is very large — about 40 percent of all machines produced by Leningrad for the chemical industry. On the other hand, it is necessary to enlarge the basic functions of plants in Leningrad now producing large-tonnage ships and refrigerators for the fishing industry. This means that in the next two or three years the shipbuilding facilities of the city must be completely freed from the production of non-profile items, including chemical

equipment.

In this connection the Leningrad Sovnarkhoz faces a problem: in a few years it must considerably enlarge the capacity of specialized chemical-machinery plants.

As early as 1959, an order of the Leningrad Sovnarkhoz converted the Starorusskiy mechanical plant into a purely chemical machine-building plant. The enterprise was specialized to the production of apparatus with mobile and complex internal devices welded from carbon, two-layer and stainless steel, lined with titanium and plastics; and vessels with immobile inner devices and capacitive apparatus. During recent years the Starorusskiy plant has increased its output of chemical equipment by more than two-and-a-half times. This was achieved thanks to the acquisition of new production areas and increased specialization. The nomenclature of the articles produced was cut from 150 to 82 items.

The specialization of the Leningrad veteran of chemical machine-building, the "Metallist" plant, has become more marked. The nomenclature of its products has been cut by more than a third. In addition, the plant has been modernized and obsolete equipment has been removed.

Today, however, we must speak not merely of the mobilisation of internal reserves at these enterprises, but of a significant extension of their productive capacities.

As early as 1960, the "Giprotyazhmash" Institute worked out a project for reconstruction of the "Metallist" plant. This plan involved the construction of a new production complex. In 1962, however, work was deferred to a later period, and it was decided to limit reconstruction to the existing shops; this will afford only an insignificant increase in capacity.

In 1961 the "Giproprigor" Institute in Leningrad laid out a project for reconstructing the Starorusskiy plant. This involved a new three-section unit for the production and assembly of large-size chemical equipment, as well as the reconstruction of the two existing shops. Estimated costs ran into millions of rubles.

But even today construction work on this plant is proceeding extremely slowly. The plant has received the project documentation for construction-assembly operations; but the RSFSR Gosplan and the All-Russian Sovnarkhoz allot absolutely insufficient funds and equipment. In 1962

the Starorusskiy plant was given 105,000 rubles for industrial construction, this figure including 18,000 rubles for construction-assembly operations and 17,000 rubles for project operations. This year the situation is the same. The / ^{plant is} allotted 100,000 rubles for capital investments. At this rate reconstruction will take 40 years.

Nor is everything in order with the organization of chemical equipment production per se. It is clear that the directors of certain enterprises have still not embraced the responsibility for the work entrusted to them. Although the 1962 plan for chemical equipment was actually overfulfilled, it is true that some plants delayed filling a number of important orders from large consumers. Their number includes the Izhorsk, which last year delayed several orders from the Groznyy chemical plant, the Nevinnomysk nitrogen-fertilizer plant, and some other enterprises.

Cases are still in evidence where plants disrupt established deadlines of cooperative deliveries, and lower the planned output during the early months of the year; all this leads to an irrational use of labor resources, "crash" scheduling, and increased production costs.

The Izhorskiy plant has disrupted delivery of

neutralizer bottoms to the Starorossiskiy plant, and of a number of items for the "Bol'shevik" plant. Last year the Starorossiyskiy people were supplied by the Kirovskiy plant, which was in debt to them for 700 tons of thick sheet steel. Three hundred armature assemblies are still owing the Starorusskiy plant. As a result, this plant has not been able to prepare receivers and other equipment for several chemical producers.

There are many additional inadequacies in the planning and organization of chemical machine-building in the Leningrad Economic District. The nomenclature plans continually appear with long delays. Thus the plans for many plants of the Sovnarkhoz for 1962 were affirmed by the planning organs only by March of that year. Plans for 1963 were affirmed on 7 February.

The experience of our work has shown that disruptions in production and delivery schedules for large chemical consumers occur partly as the result of weaknesses in material-technical supply. Not infrequently the supply and distribution organizations of the RSFSR Gosplan and of the All-Union Sovnarkhoz give out orders for the delivery of metal and assembled articles for the same quarter in which

the very production of the equipment in question is planned. The production of equipment may be planned for February, while the metal from the funds of the first quarter arrives from other economic regions somewhere in the middle of April. The metal, pipes, and assembled articles necessary for the production of chemical equipment are not distinguished from the general body of deliveries to the Sovnarkhoz or to the plant ; therefore, their dispatch, as a rule, is planned by the factory-deliverers for the last month of the quarter. The time is ripe to re-examine the question of the delineation of funds for metal and pipes, with a view to advancing the output of chemical equipment by one or two quarters.

One serious drawback has been that until quite recently the planning and introduction of correctives into the plan for the production of chemical equipment have been the concern of a legion of organizations — we mention the RSFSR Gosplan, the USSR Sovnarkhoz, the All-Union Sovnarkhoz, the Soyuzglavmash, the Gosglavmashsnabsbyt, the Soyuzglavkomitet, the Glavkomplektoborudovaniye. There is no unity in the activities of all these groups; in part the orders of some actually contradict the orders of others.

It is necessary that all planning orders should proceed from a single superior organization which must secure for its actions concurrence from all the parties concerned.

One last observation. To improve the organization of the planning of chemical equipment production, we consider it expedient to protract the planning of chemical equipment nomenclature by 2-3 years. Along with this, it is desirable that changes in the perspective plan do not exceed 10-15 percent. This will permit a significant improvement in the technical aspect, and more particularly the material-technical guarantee of orders for chemical machinery.

Persons engaged in the design of machines for the chemical industry must possess high qualifications, be well grounded in the chemical processes, the ins and outs and specifics of production. Unfortunately, at the moment we have too few such specialists. This is the result of the fact that plant design offices work essentially in isolation, without centralized technical leadership.

We propose that the necessity is here for the Leningrad Branch of the Scientific-Research Institute for

Chemical Machine-Building to assume technical leadership and supervision over the work of design offices. Qualified specialists of the Institute should become permanent advisors of plant designers, and assist them in creating truly perfect equipment. The Institute has at its disposal extensive possibilities for laying regular and well authenticated information before designers (printed publications, information lists, consultations, conferences, lectures) which concern the achievements of chemical science and technology.

Expedience dictates an operative solution of the problems involved in the future development of chemical machine-building — that young and rapidly growing branch of Leningrad industry.

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ANTICORROSION SCREWS FOR SAFETY VALVES

Following is the translation of an unsigned article in the Russian-language newspaper Ekonomicheskaya gazeta (Economic Gazette), No 17, Moscow, 27 April 1963, page 437

This newspaper, in an article entitled "The Mountain Brings forth a Mouse" (No 4, 26 Jan.), criticized the position of the Sovnarkhoz with respect to the production of anticorrosion screws for safety valves used in oil-refining units. Comrade Glukharev, director of the Main Administration for General Machine-Building, writes that the Blagoveshchensk machine-building plant of the Sredne-Volzhskiy Sovnarkhoz has been assigned a task of producing screws for 10,000 valves, 4,000 which are to be of anticorrosion type (1963 plan). The Sredne-Volzhskiy Sovnarkhoz has been entrusted with developing 1964 production of all anticorrosion valve screws.

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REMARKS ON THE LUGANSK
CHEMICAL MACHINE-BUILDING PLANT

Following is the translation of a photo
caption in the Russian-language
periodical Ekonomicheskaya gazeta
(Economic Gazette), No 19 (92),
11 May 1963/

There is enthusiastic applause at the Kurgan
Chemical Machine-Building Plant for the Lugansk workers,
who promise to make early delivery of all equipment to
critical plants in major chemical production. The photo
shows one of the Lugansk plant's best welders, A. Antonov,
busy on the production line of the boiler apparatus shop.

Photo by S. Yudin (TASS).

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