THE AMERICAN FACTOR IN SOVIET INDUSTRIALIZATION:
FORDISM AND THE FIRST FIVE-YEAR PLAN, 1928-1932

DISSERTATION

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INTRODUCTION

When I first began working on this study in 1985, I set out to explore the history of the diplomatic and economic relationship between the United States and the Soviet Union during the First Five-Year Plan of 1928–1932. My major task, I thought, would be to explain the role that American business played in the USSR’s unprecedented drive to create an industrial economy in a relatively brief span of time. Much has changed in the intervening years, and the study that follows bears little resemblance to what I thought would result from my research.

Although the actions of the U.S. government and American businesses and engineers had a great impact on the execution of the Five-Year Plan, the following study concentrates on developments within the Soviet Union; specifically, on the Soviet leadership’s effort to modernize the Soviet economy and society along American lines. One focus is on the technical-assistance agreements that Soviet industrial organizations concluded with American businesses in the late 1920s. These agreements gave the Soviet economy access to the latest word in technology and formed the primary conduit through which American machinery and expertise flowed into the USSR. But
they also were an essential component in a larger effort on the part of Soviet leaders to import a set of industrial and work-related attitudes and practices which they regarded as peculiarly American.

The First Five-Year Plan of Development of the National Economy set out an aggressive modernization program designed to transform an overwhelmingly agrarian, peasant-based country into a modern industrial society. American technical assistance would be one of the significant agents of change, for by creating an industrial economy on the basis of American technology and American technique, Soviet leaders hoped that American attitudes would follow in their wake. Several historians have noted the role that American technology played in the industrialization drive of the interwar era, but they have discussed it purely as a practical manifestation of the Soviet government’s desire to industrialize as quickly as possible.¹ To me, much more interesting is the less tangible motive that underlay the Soviet turn toward America: the desire to replicate the American experience of transforming an agrarian economy into the most efficient and innovative industrial economy the world had ever seen, which itself required imbuing a rural population with a host of values and customs quite alien to the traditional rhythms of agrarian life. These motives suffused Soviet policy toward trade with the United States, and we cannot understand that effort unless we understand the Soviet leadership’s view of American industrial culture and their efforts to adapt it to Soviet
society.

The emphasis in this study falls not on Stalin, the Politburo, or the supreme economic policymaking bodies but instead on the economic executive agencies at the secondary, regional, and local levels of the Soviet government. Economic commissariats at the national and Union Republic levels, sprawling industrial and construction trusts, and literally thousands of factory directors and technical specialists exerted a decisive influence on the formulation and execution of domestic Soviet economic policy and, as a result, foreign economic policy. My research underscores the great degree of autonomy that these agencies and groups enjoyed in their roles as chief executors of Moscow’s directives.

In the first two chapters of this study I explore the economic, political, and intellectual backdrop of Soviet policy. Although the First Five-Year Plan was designed in part to create an industrial economy independent of the global capitalist economy, it was predicated upon extensive trade. Moscow’s emphasis on rapid industrialization required massive importations of machinery and know-how, and this costly program in turn demanded considerable selling on world markets. Throughout the Five-Year Plan, Germany would be the Soviet Union’s main trading partner, but Soviet leaders’ admiration of America’s industrial prowess and their fascination with American technique meant that special attention would be given to involving Americans in the industrialization drive. Much of Chapter
I discuss the two main obstacles that Soviet planners encountered as they sought to convince American businessmen to deal with them on favorable terms: the U.S. government's refusal to recognize the government in Moscow and the suspicion with which most American businessmen regarded the Bolshevik regime in Moscow.

I discuss in Chapter II why, despite those obstacles, America remained in the minds of Soviet leaders a respectable, even desirable trading partner. At first glance it might seem contradictory that a cabal of Marxist revolutionaries intent upon creating communism in Russia and devoted to overthrowing capitalism abroad would champion American industrial achievements and urge their compatriots to study and learn from American technique. In the second chapter I try to explain how this attitude was a logical outgrowth of the Soviet leadership's ideology and world view. To Bolsheviks, capitalism was a natural, necessary stage in the world's inexorable march toward socialism. Having come to power in an overwhelmingly agrarian society, the Communist party under Joseph Stalin's leadership used the First Five-Year Plan as a kind of whip to force the pace of the march toward the future; however, this did not mean that the very real achievements of capitalism, particularly in the realm of technology, could be overlooked or bypassed. Much could be saved from capitalism's legacy, and for Soviet leaders the richest trove of heirlooms could be found in the United States, where industry and technology had reached their highest
stage of capitalist development. As a result, Soviet officials would look to America for both technology and technological know-how. More important, they seemed to hope that by importing American equipment, bringing over American specialists, and permitting Soviet workers and engineers to work and study in American factories, American methods of work would somehow be instilled in their growing labor force.

After discussing in Chapter III the details of the various technical-assistance agreements between American firms and Soviet organizations, I go on in Chapter IV to look at two major projects of the First Five-Year Plan in which American assistance played a critical role. In exploring the construction and initial operation of the Stalingrad Tractor Factory and the Nizhnii-Novgorod Automobile Factory, my focus returns to domestic Soviet developments but my perspective is from the Soviet leadership's broader goal of Americanization. The picture that emerges is one of extraordinary improvisation in both Moscow and the far-flung provinces and the almost complete abandonment of "American technique," as politically inspired superplanning and a growing atmosphere of police repression created chaos throughout Soviet industry. The result was to place the heads of construction and industrial trusts, as well as thousands of factory directors and engineers, in the impossible position of being responsible for meeting targets dictated from above without having the authority or means to achieve them.
Trusts and commissariats fought with each other for control of scarce human and raw materials, and directors and engineers were left with few alternatives but to hew to unrealistic plans, abdicating responsibility for making decisions and resisting the slightest innovations that, if unsuccessful, might cost them their jobs or worse. In such an environment, the effort to transplant American technique was doomed from the start.

The fifth chapter looks at this doomed effort more closely. This chapter lays bare the apparent contradiction between the widespread Soviet fascination with all things American and the frequent refusal of Soviet directors and engineers to accept American advice. Trusts, factories, and the people who ran them were more than happy to obtain the latest word in American technology, so much so that they often turned to imports when Soviet-produced equivalents were at hand. But the respect and desire for foreign machinery did not extend to foreign advice. American engineers were constantly amazed and exasperated when their advice and recommendations went unheeded, or when they were isolated in meaningless jobs bearing no relation to the expertise for which they were hired. For many Americans, the explanation could be found in unflattering characterizations of the Russian peasant mentality, but a perceptive few understood that the difficulties of modernizing a peasant society, compounded by a stifling bureaucratic approach to decision making, were at the root of the problem. Indeed, the massive
influx of peasants into the Soviet Union’s burgeoning
cities and factories could not help but throw industry into
chaos.

What I found much more illuminating, however, was that
the primary source of resistance to transplanting American
technique into Soviet industry came from Soviet directors
and engineers, not from untrained and disgruntled workers.
The reason for this opposition--from the group that should
have been most enthusiastic--was that production as well as
planning in the USSR had become essentially politicized.
No Soviet factory director would authorize, and no Soviet
engineer would employ, such "American" concepts as
efficiency, rationalization, cost-effectiveness, and
innovation if adhering to the plan was safer, and if
detouring from it might bring professional and personal
disaster.

In Chapter VI the narrative returns to America in order
to follow a seemingly minor domestic controversy that
ultimately brought an abrupt end to the vigorous expansion
of Soviet-American trade. The main issue under contention
was the importation of Soviet lumber, which certain
American loggers and pulpwood producers alleged--
correctly--was produced by convict and forced labor and
therefore subject to exclusion under American tariff
regulations. The allegations sparked considerable
controversy in the United States and led to a sharp
struggle between the advocates and opponents of continued
trade with the USSR. In the ensuing controversy, U.S.
policy toward Soviet trade was thrown into confusion, alarming many American businessmen, infuriating the Soviet leadership, and ultimately contributing to the abrupt demise of trade relations between the two countries. By the time the United States granted diplomatic recognition to the Soviet Union in November 1933, a once vigorous economic relationship had shrivelled and practically died.

* * *

Like any other scholarly study, this work has been inspired and informed by several earlier studies. In the field of U.S. diplomatic history this statement is less true only because very little work has been done on Soviet-American relations in the era between the end of the Russian Civil War in 1921 and the establishment of diplomatic relations between the United States and the Soviet Union in 1933. Still, my intellectual debt to James Libbey, Joan Hoff-Wilson, and Peter Filene will be obvious to those who are familiar with their works. These three monographs did much to help me understand the important role that American businessmen and their private associations played in the formation of official American policy toward the Soviet Union.

I have benefited even more from the recent outpouring of work on Soviet history in the interwar era, particularly the books and articles dealing with formation and operation of the Stalinist system. These recent studies have turned away from the old "Cold War" historiography that focused
mostly on top Soviet policymaking circles to investigate
the impact that Soviet society had on events in the 1920s
and 1930s. They have revealed, in Larry Holmes’s words, "a
chaotic, inefficient, and insubordinate bureaucracy from
top to bottom; a center wracked with competing points of
view and institutions struggling over jurisdictional turf;
and a society successfully resisting Moscow’s directives."4
What follows in this study will confirm this view and, as
noted above, will amend it slightly. For an inescapable
conclusion of this work is that the relationship between
the governors and the governed was a dynamic one that
forced important modifications in the center’s domestic and
foreign economic policies. As a result, the role that
Soviet officials assigned to America in their sweeping
drama of social and economic development changed
dramatically during the course of the Five-Year Plan.

* * *

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any readers that the views expressed in this dissertation
are my own.
The most comprehensive work is Antony C. Sutton's three-volume study, *Western Technology and Soviet Economic Development* (Stanford, 1967-73). This study is a useful compendium of technical-assistance agreements, but it does not analyze their implementation or their actual impact on the course of Soviet industrialization. See also Joan Hoff-Wilson, *Ideology and Economics: U.S. Relations with the Soviet Union, 1918-1933* (Columbia, MO, 1974), 96.


Larry E. Holmes, "Magic into Hocus-Pocus: The Decline of Labor Education in Soviet Russia's Schools, 1931-1937," *Russian Review* 51 (October 1992): galley page 83. Also see Moshe Lewin, "Russia/USSR in Historical Motion," ibid. 50 (July 1991): 249-66. The new literature on Soviet history could be dealt with properly only in a large-scale article, which fortunately Sheila Fitzpatrick has provided in "New Perspectives on Stalinism." See her article and the responses to it in ibid. 45 (October 1986): 357-413; and the ensuing debate in ibid. 46 (October 1987): 375-431. Since the time Fitzpatrick wrote her essay, the literature has continued to expand rapidly. Representative research and conclusions can be found in John W. Strong, ed., *Essays*
on Revolutionary Culture and Stalinism (Columbus, OH, 1990).
CHAPTER I

The American Factor in Soviet Industrial Development

From its earliest, obscure origins in the mid-1920s until its triumphant, ostensibly successful conclusion in late 1932, the USSR's First Five-Year Plan for Development of the National Economy depended heavily on the capitalist world.1 Although Soviet policymakers from Stalin on down meant for industrialization to bring the Soviet Union a measure of independence from the global, capitalist economy, they were equally aware of the fact that sufficiently rapid progress would not be made unless those very capitalists could be involved closely, at least initially, in the Soviet effort.2 No doubt, the reliance on foreign equipment, expertise, and credits rankled many Soviet industrialists who either were swept up in the enthusiasm of "building socialism" or were simply proud nationalists. This resentment would take its toll on the industrialization drive and contribute to many of the problems that foreigners faced when working in Soviet industry.3 But the negative attitude toward foreign participation was in the minority, and it certainly held no sway over top policymakers, who recognized the alternative. To create a modern, self-sufficient industrial economy on their own would have been prohibitively expensive, perhaps
even more wasteful than the course they actually chose proved to be, and, of greatest importance, perilously slow.

It would be wrong to try to single out any one factor as the most important motive force behind the decision to industrialize, and quickly. Those factors involve ideological, political, economic, security, and social imperatives, all of which contributed to the weltanschauung of Soviet leaders and influenced the decisions they made. 4 Having seized power in 1917 on behalf of the working class, they literally had to breathe life into industries ravaged by war, revolution, and civil war, and practically recreate a working class that had either been killed off in the civil war or dispersed to the countryside in search of food. The vast expansion of Soviet industry would of itself involve an equal expansion of the working class, the social group upon which Bolshevik rule in Russia was predicated. The devastation wrought by civil war and famine had compelled Lenin and his party to retreat to a New Economic Policy that permitted a flourishing private sector in trade and services, but the ultimate goal of a socialist order was only delayed, not dropped. By 1928, when industry essentially had been restored to its prewar levels, the Soviet leadership renewed its search for ways to bring about the envisioned socialist society. Rapid industrialization was the route it eventually chose.

The decision to launch an all-encompassing national plan for industrial development seems to have been arrived at gradually, gaining general acceptance in the councils of
party and state by 1927 at the latest. Thereafter, the overriding question involved the nature of the plan: specifically, would it be a plan for the gradual, almost evolutionary development of the basic components of an industrial economy that would allow for further progress in the future?; or, would it be a "revolutionary" plan demanding rapid, simultaneous progress in every sector of the national economy? The initial variations of the plan followed the first approach. The plan eventually adopted, however, demanded the second approach, although in execution it hardly resembled a plan.

Early plans from 1927 and 1928 envisioned a "moderate" or "realistic" program of industrialization that concentrated on a few core industries, from which further progress could be made. These plans underwent constant criticism and revision, however, as production targets went up and as the overall scope of development widened. The reason for this was purely political, not surprisingly, for the progressive expansion of the plan’s ambitions followed closely upon the heels of Joseph Stalin’s rise to a position of primacy in the All-Union Communist Party (bolsheviks). Although there were many factors enabling Stalin to achieve his predominant position, certainly one was his early championing of the concept of "socialism in one country." In essence this was the idea that it was possible (and perhaps desirable) to turn the energies of the Soviet state away from the world proletarian revolution and toward building a socialist society at home. Stalin’s
advocacy of such a course played well among a large segment of the Communist party, bringing him important support in his political struggle for leadership. And with his position secured by 1929, Stalin, again with broad support from able lieutenants and an energetic rank-and-file, embarked upon an even more grandiose scheme for rapid industrialization that soon lost any semblance of planning. The focus now would simply be on progress, on a rapid movement forward along all economic fronts, with constantly shifting plans and increasingly unrealistic targets that seem, in retrospect, to have served for Bolsheviks the same function as Christ’s perfection does for good Christians: humanly impossible to attain, but morally imperative to strive for.

One aspect of the Five-Year Plan that did not change was its extensive reliance on foreign technology, foreign know-how, and foreign trade in all its aspects. Early on the Soviet leadership realized the necessity of utilizing the experience and technical achievements of the capitalist world if it was even to hope to achieve its program of economic development. To "catch up with and surpass" the leading capitalist powers, Germany, Great Britain, and above all the United States, the Soviet Union needed foreign technical assistance, which in turn meant that it had to deal extensively on the global market. The hope was to transplant to the Soviet economy the achievements of western economies, thereby leaping over intermediate stages of development and setting the stage for an indigenous
flowering of science and technology that would leave the capitalists behind. As I. V. Gurevich, a member of the Supreme Council of the National Economy (Vesenkha) put it in September 1929, the First Five-Year Plan could be realized "only on the condition that we master . . . the latest achievements of American and European technical skill." According to Gurevich, this meant that foreign technical assistance would have a significant role to play in the plan, "not because we have no confidence in our own powers, but because we desire to solve in the shortest possible time and with the least possible difficulties" the tremendously complex problems involved in rapid industrialization.5

As the pace of industrialization quickened, so too did the calls from the Soviet leadership for intensified efforts to utilize foreign skills. In October 1929, as the targets in the Five-Year Plan were undergoing upward revision, the chairman of Vesenkha, Valerian V. Kuibyshev, demanded "foreign assistance on a still greater scale." Foreign technology and foreign technique, he asserted, were "the keys for hastening the pace of our development," and to achieve that quicker tempo, he said, "a most radical change must come about in this connection."6 Resolutions of party organizations and directives from government agencies resounded with calls for the wide application of foreign engineering experience and technical skills. During a plenary session of the Communist Party Central Committee in November 1929, the Soviet Union's top
policymakers proclaimed that "wider scope" must be given to the "maximum utilization of the achievements of science and technology throughout the world" and to the "employment of foreign technical assistance and foreign specialists."7
And to achieve this, the Central Executive Committee (TsIK) of the Communist Party urged that foreign achievements could best be emulated by "engaging the services of foreign specialists," as well as "sending abroad our economic workers, engineers, technicians, scientific workers, and labor brigades."8

Throughout the course of the First Five-Year Plan, which formally lasted from October 1928 through September 1932, the Soviet Union’s greatest foreign partner in terms of trade, credits, and technical assistance was Germany. For the most part this fact can be explained by geography, by the common political interests of the two pariah states of the post-World War One European order, and by dint of history, since the two states even before the war had been each other’s best trading partners. But both before and during the plan, Soviet leaders assigned a special importance to the United States, one that grew out of an almost mystical faith in the industrial and technological prowess of the trans-Atlantic giant, and one confirmed by America’s ascension, in Soviet eyes, to the top of the capitalist world in the aftermath of the war. It was Lenin himself who had noted that the Soviet state could follow one of two examples in its industrial development: the Prussian or the American. And his eventual successor and
the man who presided over the great leap forward, Stalin, termed the essence of a Bolshevik's party work "a combination of American efficiency and Russian revolutionary sweep." 9

To Soviet policymakers, and to men in responsible positions throughout the Soviet economy, it was the American example that they had to emulate: a huge, overwhelmingly agricultural country had quickly industrialized and then vaulted into a commanding position within the global economy. There was no question but that Soviet leaders hoped to repeat the American experience, and the way to do this was to borrow from that experience. As a lead editorial in the daily paper of the USSR Council of Labor and Defense put it in late October 1928:

The epoch of reconstruction that the Union's national economy has entered makes the question of our ties to the American economy particularly significant: the rationalization of production, the construction of new industrial enterprises, electrical generating stations, transportation and communications facilities, the reequipment of our factories, and the industrialization of our agricultural economy--all these fundamental aspects of our construction are tightly linked with the problem of the broad utilization of the most advanced forms of foreign technology. And in this matter the most visible place belongs, of course, to North America and its highly developed industry.

One of the signal questions of the First Five-Year Plan, to be repeated endlessly in state, party, and private pronouncements, was "How can we master American industrial and engineering technique?" 10 This question encompasses a far more complex group of tasks that Soviet leaders set for their burgeoning industrial apparatus and that I will explore later. But it is important to note from the outset
that Soviet government officials, industrial executives, trade union leaders, and engineers felt compelled to keep asking this question throughout the First Five-Year Plan, and this indicates the relative lack of success they experienced in this basic task. One aspect of the First Five-Year Plan, then, was a concerted effort to transplant "American technique" to Soviet industry—an effort that encountered serious obstacles, and at times furious resistance, from almost every quarter of Soviet industry. There were also considerable obstacles overseas—some of the Soviets' own making—that threatened to torpedo the effort to gain access to American technology. But, ironically, it is clear that Moscow had an easier time dealing with American capitalists than it did with Russian peasants, Soviet workers, and the administrative apparatus it created to carry out its ambitious economic plan.

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The most visible obstacle to Soviet efforts to create a normal economic relationship with the United States was the American government's refusal to establish diplomatic relations with Moscow; however, although of "symbolic" importance to Soviet leaders, the absence of diplomatic relations was hardly the most important obstacle. Certainly the various problems and controversies that bedeviled Soviet-American relations through the Five-Year Plan period might have been less acute, perhaps even avoided altogether, had ambassadors been exchanged between the two governments, but throughout the industrialization
drive Soviet policymakers devoted far more attention to wooing private individuals and American businessmen than to persuading Washington-based policymakers to grant recognition. This essential fact must be kept in mind while trying to fathom the motives underlying the Soviet Union's American policy.  

Even in the earliest, most idealistic years of the Russian Revolution, Soviet leaders had hoped that practical, business-oriented Americans would extend a helping hand to the Soviets' efforts to rebuild their devastated economy. These hopes never panned out, however, in part because of American businessmen's ignorance of conditions within the Soviet Union and their distrust of the Soviet government's intentions, and in part because the Soviet government's basic poverty made it impossible for it to purchase much help. Among American businessmen the notion was widespread that investment in the Soviet Union was unsafe, subject to expropriation, and simply unprofitable. And among Soviet leaders a sincere belief in the relative disinterestedness of American capitalists was undermined by the suspicion that, all the same, capitalists were enemies of socialism. Concessions to American business were strangled by red-tape, undermined by state-sponsored worker agitation, and eventually abandoned as not worth the time needed to negotiate them and the limited profits they realized. From the mid-1920s, the preferred forms of association with American and Western business became outright purchases of raw materials
and finished products, and the technical-assistance agreement.

The number of such purchases and agreements would grow rapidly in 1928 and literally boom in 1929, the first full year of the plan's implementation, but before this could happen, several irritants in the Soviet-American economic relationship had to be removed or circumvented. The most important in the eyes of Soviet policymakers, and the one least amenable to resolution, was the American government's prohibition against the importation of Soviet gold, the one commodity that Moscow could expend with relative ease and that American businessmen would not balk at accepting.13

Until early 1928 the Soviet government had sidestepped this restriction by depositing gold in British and German banks, upon which its American partners could draw, and by maintaining small dollar accounts in New York with Chase National Bank and the Equitable Trust Company, both of which had fairly significant dealings with the Soviet State Bank. But as the volume of Soviet-American trade increased this procedure grew increasingly cumbersome, and several smaller American businesses were reluctant to engage in such a convoluted system of payments.14 On 21 February, therefore, a shipment of Soviet gold worth $5 million arrived in New York harbor, for deposit in the vaults of Chase National and Equitable Trust. Apparently, the two American banks and their Soviet partner had decided that the increasing tide of business between the two countries would overcome any lingering opposition in the U.S.
Departments of State and Treasury to imports of Soviet gold. Their gamble might well have paid off had it not been torpedoed from another, wholly unexpected quarter: when the gold arrived in America, the State Bank of France filed suit in American courts to impound the gold, pending investigation of its claim that the Soviet gold in reality was French property that was confiscated by the Bolshevik government in 1917. This was on 6 March, and on the same day the U.S. Treasury announced that it had instructed its assay office in New York not to accept the gold.15

To Soviet officials, the lawsuit was yet another indication that the American government, pious denials to the contrary, was obstructing the expansion of Soviet-American trade. For several years officials in Washington had insisted that the U.S. government placed no restrictions on trade with the Soviet Union.16 Soviet policymakers, however, looked upon Washington’s prohibition against the floatation of Soviet loans on the U.S. market as just one example of a more comprehensive "credit blockade" that severely dented their ability to buy and sell in America. The gold incident of early 1928 was another piece of evidence, as far as Moscow was concerned, and officials there thought it more than coincidental that the French bank’s lawsuit and the U.S. Treasury’s announcement came within hours of each other.17

The lawsuit dragged out in the courts for well over a year with no decisive resolution, but its salient effect was to deprive the Soviet government of a direct means of
paying for its purchases on the American market. The gold shipment was hastily transported back to Germany, where American firms could draw upon Soviet accounts and then freely repatriate their earnings. But not every American firm that would otherwise have been glad to sell to the Soviets was willing to engage in such maneuvers. These firms, as well as the Soviet government, instead had to rely on the relatively limited accounts in the Chase National Bank of the Soviet purchasing agency in New York, the Amtorg Trading Corporation, an agency that received its funds through a complex series of veritable "laundering" in European banks that erased all traces, officially, of the origins of the gold. That gold, plus credits to Amtorg's accounts generated by Soviet sales on the American market or by transfers of other convertible currencies from abroad, formed the basic means for payment of Soviet purchases in America throughout the First Five-Year Plan.18

Another financial problem the Soviet government faced on the U.S. market, one related to the restrictions on Soviet gold, was a desperate lack of credit needed to finance its purchases. While not a serious problem prior to 1928, with the launching of the Five-Year Plan and the enormous growth in purchases of every description, particularly of machine tools, the basic lack of credit threatened to undermine from the very start the ambitious capital-investment program in heavy industry that formed the heart of the plan. Naturally, Soviet economic policymakers tried to lessen the economy's dependence upon
imports by urging planners to exhaust all domestic possibilities before looking abroad. But this approach was of limited value in the early years of industrialization, when the problem was one of creating virtually from scratch a machine-tool industry. Moreover, even when domestic products were available as substitutes, directors of factories and trusts often preferred to buy foreign equipment that they considered, not always justifiably, to be of superior quality and design.\textsuperscript{19}

Barring the floatation of loans on the U.S. markets, the only way that Soviet policymakers could secure favorable credit terms for their purchases was on a piece-by-piece basis with individual American firms. Evidently, Soviet officials expected that they could entice American businesses into granting long-term credit arrangements by dangling attractive prospects for huge, eventually lucrative Soviet orders before each firm’s eyes.\textsuperscript{20} This strategy could only work in certain cases, planners realized, so they concentrated on the larger American firms with which they wanted to do business. Their first success came on 16 October 1928, when Amtorg concluded a $26 million technical-assistance agreement with the International General Electric Company (IGE).\textsuperscript{21}

The agreement, which in terms of the development of the Soviet electrical equipment manufacturing industry was of less importance than agreements reached with German and British manufacturers, nonetheless sparked an enormous outpouring of celebratory articles in the Soviet press and
a great deal of optimism among Soviet political and economic leaders. To Soviet officials, the agreement with IGE was a significant economic and political agreement that "broke the American credit blockade" of the USSR. It not only granted Amtorg a six-year credit, important in itself, but when the final payment was made IGE would consider settled its claims against the Soviet government for property confiscated in the aftermath of the Bolshevik Revolution. Officials of General Electric had cleared their intentions with State Department officials, something the Soviets were aware of, and upon the conclusion of the agreement Soviet officials played up this facet of the negotiations, claiming that Washington's acquiescence signalled the U.S. government's willingness to see American firms at last grant "realistic" credit terms to Soviet trading organizations.\(^\text{22}\)

Although Washington's blessing was important to IGE officials, the Soviets overestimated the influence the State Department's expressed opinion had on the American company. Certainly IGE would have hesitated to go ahead had Washington opposed the project; however, until this time no American company would have dreamed of entering into such an agreement with the Soviet government, and so Washington never had a chance until then to express an opinion on such a contract. And in the view of the State Department, as long as IGE did not act as the agent for floating Soviet bonds on American capital markets and instead relied on its own resources, the granting of
credits was perfectly acceptable. Not until a year later, when the Ford Motor Company in a technical-assistance agreement of similar scale refused to grant long-term credits, did Soviet officials realize that credit arrangements depended solely upon the firm with which they were dealing, and that favorable terms would most likely be won from those firms that had substantial resources of their own.23

It is possible, of course, that policymakers in Moscow were fully aware of the U.S. government's generally disinterested attitude toward the granting by American companies of long-term credits to Soviet organizations, and that they merely played up the IGE-Amtorg contract in the hopes that it would prompt other American businesses to consider similar credit arrangements. In late 1928, after all, there remained a good deal of skepticism about the creditworthiness of the Soviet government, not to mention its overall trustworthiness.24 But if this were true, then it seems odd that, when discussing the contract's larger significance, a Pravda editorial asserted that the agreement with IGE made another Soviet goal, American diplomatic recognition of the USSR, less significant. According to Pravda, the IGE-Amtorg contract "strengthened the arsenal of arguments in favor of the United States' recognition of the USSR," but at the same time it "rendered the act relatively unimportant. If (Owen D.) Young and one of the largest consortiums in the world trust the Soviet government, then why wouldn't other industrialists and
bankers follow in their footsteps?" Second-guessing official Soviet pronouncements is a hazardous pastime, but it seems reasonable to conclude that had the Soviets in fact believed that the IGE contract made American recognition less important (at least to the Soviets), then they would have avoided mentioning the fact. The first order of business for Moscow was attracting American business, but recognition remained an important prize.25

Aside from the practical problems Soviet leaders faced when trying to persuade American businessmen that dealing with the Soviet Union would be profitable, they also had to overcome the perception among business leaders that the Soviet Union was a state perpetually on the verge of economic ruin, that it made contracts only to break them, and that it piled up debts only to repudiate them. Like a leitmotif in the officially orchestrated press, the Soviet government tirelessly differentiated between the state debts of the Tsarist and Provisional governments, which it absolutely would not redeem, and the prerevolutionary assets of foreign nationals and businesses, which it was willing to discuss once recognition had been granted. Moreover, it pointed out with a conviction based on fact that no obligations entered into by the Soviet government had ever been repudiated. Nor had Moscow ever defaulted on its debts.26

This problem partially solved itself during 1928 and 1929: as the number of American firms doing business with the Soviet Union grew dramatically, others grew more
willing to follow suit. Certainly such dramatic deals as the one between IGE and Amtorg strengthened this trend, as did the effects of the Depression, which made hard-pressed American manufacturers far more willing to risk dealing with the Soviets. But from the number of inquiries made at the U.S. Bureau of Foreign and Domestic Commerce by businesses of every description throughout the Five-Year Plan, it is equally clear that the suspicion and hesitation had not fully evaporated. And the spurt in Soviet-American trade had virtually no impact on American unwillingness to extend favorable credit terms to Soviet purchasers.27 As a result, although Soviet trusts had almost no difficulty in finding American firms willing to sell products or designs on a cash basis, Soviet officials in both Moscow and New York had to wage a continuous campaign to convince Americans that better credit terms were necessary if Soviet-American trade were to realize its full potential.28

The evolution of American business's attitude toward the Soviet market played an important part in the course of Soviet-American economic relations during the late 1920s. Although Joan Hoff-Wilson and Peter G. Filene have examined this subject in general terms, neither has grasped the complexities of business opinion, described the actual breakdown of opinions according to the size and activity of particular firms, nor appreciated the impact that evolving attitudes had on Soviet actions.29 Soviet sources, both published and archival, reveal that high-level officials in the Soviet political and economic hierarchy had a good
grasp of American business opinions, especially of the differences within the business community, and that they tailored their statements and their policies in an effort to bolster those whom they considered to be favorably disposed toward economic collaboration with the industrialization effort.\textsuperscript{30} And an examination of those sources reveals as well that Soviet officials understood just how wrong it was to talk in terms of a monolithic "business opinion," since the splits and variations in the American business community mocked any effort to assign concrete categories to the debate.\textsuperscript{31}

As Peter Filene noted long ago, probably the principal factor in shaping business attitudes on the desirability of dealing with the Soviet Union was the economic situation of both countries: prior to the onset of the Great Depression most public utterances by representatives of U.S. business on the subject of Soviet-American trade were either hostile or indifferent. When the Depression took a firm grip of the U.S. economy, however, at the same time as the Soviet Union was experiencing seemingly dramatic industrial progress and a terrible labor shortage, outlooks changed sharply, taking a much more favorable turn.\textsuperscript{32} While his observation is true to an extent, Filene glosses over divisions within the business community that existed on both sides of the divide created by the Great Crash. Moreover, he neglects entirely the continuity within the manufacturing sector of the economy, where businessmen overwhelmingly supported at the very least the creation of
favorable, predictable conditions for Soviet-American trade.

In brief, previous studies have shown how American business leaders adopted an increasingly benign attitude toward the "Soviet experiment" during the 1920s. As the NEP took root in the Soviet Union, Americans interpreted the rebirth of a private trading sector as proof that the Bolsheviks had abandoned their youthful ideological excesses and were on the road to the creation of a "state capitalism" modelled after the large industrial corporations dominating the American economy. And as Soviet purchases in the United States grew exponentially in the years just prior to the initiation of the plan, a large number of American businessmen became almost enthusiastic, particularly because they were aware of the constant Soviet calls for its factory directors and workers to adopt "American methods" and "American attitudes" toward work.³³ By the end of 1929 a veritable revolution in American business thinking had occurred; from the chaos and destruction of the early NEP, when Russia was perceived as "the biggest business failure of history," that country had been transformed into "one of two great experiments" that was "coming to the rescue of American industry."³⁴

It should be stressed that American business, however enthusiastic certain sectors were for normalized trading relations with the Soviet Union, did not go as far as some propagandists did in proclaiming the "convergence" of the USSR and the United States. Such business organizations as
the Chamber of Commerce, in fact, allied themselves with vociferous anti-Soviet groups like the National Civic Federation in calling for rejection of Soviet trade overtures, claiming that trade relations were, with the USSR at least, an overwhelmingly political question in which compromise should not be brooked.35 But more typical, especially as the 1920s progressed, were business figures such as Ivy Lee, the spokesman for Standard Oil Company of New Jersey and soon to be a leading figure in the American-Russian Chamber of Commerce, who took what they saw as a "common sense" approach to the Soviet Union: it was beginning to buy significant quantities of American goods, and it was paying for those purchases promptly, so why not sell?36

The event that seems best to signify the consolidation of a generally positive American view of trade with the USSR was the revival of the American-Russian Chamber of Commerce (ARCC) in June 1926. Organized originally in 1916 as a vehicle for promoting trade with Russia, the body fell into factional infighting and then irrelevance after the Russian Civil War, the destruction of Russian industry, and the almost total demise of trade between the two countries. By 1926, however, with Soviet-American trade beginning to boom and all indications pointing to even greater increases, the chamber was reorganized, with Reeve Schley, vice-president of Chase National, as its president. The ARCC would "not become a political debating society" but would instead devote its activities entirely to the
The rebirth of the ARCC served as a dramatic indicator of the change in business attitudes toward the Soviet economy. It was no longer a gamble to invest in the Soviet Union, it seemed; more and more it looked like a sound and profitable venture, particularly as the list of companies doing business with the Soviets continued to grow, attracting even more interest among American business. In 1924, American exports to the Soviet Union quadrupled over the previous year, and then increased by 50 percent again in 1925. For both years the balance of trade was heavily in favor of the United States. This trend continued in 1926, and by 1927 most American businessmen interested in foreign markets were aware of the fact that the United States accounted for almost one-third of all Soviet foreign trade. The 1928 deal between IGE and Amtorg seemed to give a blessing to the respectability of Soviet-American trade, and the membership of the ARCC doubled in the year following that agreement.

Although Soviet Russia’s elevation to respectability in American business leaders’ eyes was often explained in terms of Moscow’s alleged abandonment of communism, in fact it was due to the increasing profits of trade. Colonel Hugh Cooper, who had been chief engineer at the Muscle Shoals project and then chief engineer for the Soviet Union’s massive Dneprostroi hydroelectric project, informed American delegates to the 1927 congress of the International Chamber of Commerce that the Soviet
government’s "responsible industrial leadership" was bringing that country into a "new era" comparable to that being forged in the United States. A further prod came from Europe, which nervous American businessmen feared would reap the greater share of profits to be had while Americans hesitated.

The onset of depression in the United States, coinciding as it did with the Soviet industrialization drive and the tremendous expansion in Soviet orders on the U.S. market, strongly reinforced these trends in thinking. Although businessmen, if they even bothered to think about it, probably discarded their benevolent view of a Soviet economy marching down a capitalist path and looked instead with a measure of fear at the astounding progress this "planned" economy was making, what really counted in their calculations was the growth in Soviet purchases of their products. Some business circles still concentrated on the harrowing failures of the Soviet plan: shortages, rationing of basic food and consumer-goods, colossal waste and inefficiency, and the parallel and even more shocking violence in the Soviet countryside, where peasants were furiously resisting the government’s collectivization campaign. But while accurate, this attitude could not compete effectively with the rising level of Soviet purchases of American goods and could hardly persuade businessmen to ignore a market that in 1930 increased the value of its purchases by roughly 35 percent over the preceding year. Indeed, in late 1930 the Commerce
Department reported that the USSR was the only country that had increased its U.S. purchases in the first nine months of 1930, compared to the same period in 1929.43

The Depression's impact was indeed decisive. By 1930, Business Week was reporting that a majority of leading bankers, manufacturers, and import-export firms believed that Soviet credit was excellent, that Moscow had secretly compensated those businesses whose property had been confiscated after the Revolution, and that the Soviet economy's need for American goods would remain large for some time to come.44 Moreover, in spite of the noisy rows over alleged Soviet dumping or use of convict labor that occasionally agitated certain vitally interested sectors of the U.S. economy in 1930 and 1931, the ARRC and several business publications vigorously defended Soviet-American trade and opposed the imposition of any sanctions.45 The ARCC tried to counter the accusations of Soviet dumping while other business organizations and publications generally accepted the charges, although this did not prevent them from opposing any retaliatory actions. The reason, it seems safe to conclude, was simple: profits.

A profitable and growing trade relationship was not to be dismissed lightly, but when it appeared to be jeopardized it became perhaps even more valuable. To be sure, Soviet-American trade in 1930 constituted only a little more than 1 percent of all American commerce, but the balance of that trade was overwhelmingly favorable to the United States and it showed every indication of
growing. Moreover, American exporters were alive to the fact that by 1930 the United States exceeded all other nations in exports to the USSR, providing over one-quarter of total Soviet purchases.⁴⁶ Therefore, when the Soviet government announced that it would respond to Washington’s sporadic embargoes against Soviet imports by transferring its purchases to other countries, the ARCC and its allies redoubled their efforts to put Soviet-American trade on a stable footing. They pointed out the Soviet Union’s need to increase the volume of its exports as commodity prices fell, extolled the virtue of the Soviet government as a reliable trading partner that paid its debts promptly, urged the extension of long-term credit arrangements to Soviet purchasers as an enticement to win back Soviet orders, and, to a lesser extent, began to urge the extension of diplomatic recognition to the government in Moscow.⁴⁷

Nothing that these American advocates of trade with the Soviets tried, however, worked. Soviet orders of American goods fell from $4.5 million in August 1931 to only $300,000 in October, and the Soviet boycott continued throughout 1932, causing the value of U.S. exports to the USSR to drop some 90 percent from the 1931 totals.⁴⁸ But in spite of the decline, the Soviet market did not lose its appeal for American businessmen; if anything, that appeal grew stronger as access was withheld and the Depression in America deepened. By the end of the First Five-Year Plan in late 1932, American business opinion, while not
presenting a solid phalanx, was nonetheless overwhelmingly convinced of the need for a solid and stable economic relationship with the burgeoning Soviet economy. 49

How ironic it is that the Soviet government’s goal of convincing "American business circles" that it was a good trading partner was achieved at roughly the same time that the Soviet need for American machinery and American technology was declining, and that a major reason behind the success was a depression that wrought havoc with the foreign-exchange earnings that Soviet officials counted on to finance a good portion of their Five-Year Plan. Convincing American business that the Soviet Union offered a reliable market was essential to the larger task of gaining access to American technology and expertise, upon which success of the Five-Year Plan depended. As noted above, the Soviets’ effort to secure American participation in the plan, either through sales of machinery or active participation of Americans in industrial projects in the USSR, proved much easier than their effort to transfer American methods to Soviet industry. Before exploring that aspect of the Soviet-American relationship, however, it is necessary to understand what motivated Soviet policymakers in their determined effort to weave America into the fabric of its industrial plans.

2 "Za sobstvennoe proizvodstvo, za nezavisimost' ot kapitalistichekogo mira," Pravda, 1 January 1928.

3 The experiences of foreign workers and engineers will be dealt with in detail later. Good, generalized memoir accounts are Theodore Rukeyser, Working for the Soviets (New York, 1935); and John Scott, Beyond the Urals (New York, 1939).

4 The literature on motives behind the First Five-Year Plan is enormous. Good introductory information can be found in Alexander Erlich, The Soviet Industrialization Debate, 1924-1928 (Cambridge, MA, 1960); and Moshe Lewin, Political Undercurrents in Soviet Economic Debates: From Bukharin to Modern Reformers (Princeton, 1974).

5 "Problemy industrializatsii i mirovoe khoziaistvo," Pravda, 26 September 1929.

6 "Zadachi promyshlennosti v piatiletke," Ekonomicheskaia zhizn', 18 October 1929.

7 "Rezoliutsii plenuma TsK VKP(b)," Pravda, 4 November 1929.

8 "Rezoliutsii vtorogo zasedaniia V Vsesoiuznogo Tsentral'nogo Ispolnitel'nogo Komiteta," Pravda, 8 December 1929.

9 There is a large literature on this Soviet fixation with American economic achievements, and it is conveniently summed up in Hans Rogger, "America in the Russian Mind," Pacific Historical Review 47 (February 1978): 27-51.

10 "Nashi khoziaistvennye sviazi s Amerikoi," Ekonomicheskaia zhizn', 30 October 1928.

11 There is no good scholarly study of the effect of Washington's nonrecognition policy on Soviet attitudes toward economic relations with American business. Nor is there any serious scholarly research devoted solely to Soviet attitudes toward economic relations with America. Some information on these matters can be gleaned from Joan Hoff-Wilson's Ideology and Economics.

12 The notorious "Vandenberg concession," in which Lenin himself was taken in by a mysterious figure who he believed was related to the famous namesake, was the first of a series of efforts to involve American businessmen in the tasks of economic reconstruction. On this and on various other concessions granted to Americans in the first decade of Soviet power see the first volume on Sutton, Western
Technology and Soviet Economic Development.

The prohibition dated from 1920. See "A Statement by Simpson, Thacher & Bartlett, Counsel for the State Bank of the U.S.S.R.," 6 April 1928, Gumberg Papers, box 6-A, folder: January 1 to June 30, 1928. There is no evidence that Soviet officials entertained even the slightest hope that Washington would allow the flotation of Soviet bonds on American capital markets, not to mention consider granting outright export guarantees, which would have to await recognition.


See, for example, Hoover (U.S. secretary of commerce) address before the International Chamber of Commerce, 15 May 1922, enclosed in Hoover to John M. Brewer, 23 May 1922, Herbert Hoover Commerce Papers, box 536, folder: Russia: Russian Problem, 1921-1922, Herbert Hoover Presidential Library, West Branch, Iowa. This assertion would be reiterated throughout the 1920s and early 1930s in response to inquiries by American businessmen to both the State and Commerce Departments.


See Schley to Korobkoff, 13 April 1928, and Gumberg memorandum of meeting between Schley and Francis B. Kellogg (U.S. secretary of state), 11 May 1928, Gumberg Papers, box

One example of many would be the controversy aroused by the revelation that two Soviet organizations, Dal'ris and Azneft', had petitioned for the funds needed to purchase 170 Fordson tractors, despite having been ordered to purchase domestic tractors produced in the Ukraine, and repeatedly refused to buy the Ukrainian tractors on the grounds that they were of inferior quality. See "'Amerikanski Fordzon' ili Ukrainskii 'Kommunar'?' Pravda, 1 January 1928; and 'Protest protiv zakaza traktorov v Amerike,' and "IuMT ne obespechen zakazami na traktory," TPG, 13 and 14 January, 1928.

See, for example, E. Khmel'nitskaya, "K voprosu o mirokhziaistvennykh sviazakh SSSR," Planovoe khoziaistvo, 1928, no. 3:22-33; and "Torgovy balans i tekushchie zadachi," Ezh, 22 June 1928.


Soviet misinterpretation of Washington's influence on the IGE negotiations is best expressed in "Washington ne vozrazhaet protiv dolgosrochnyk kreditov SSSR"; and "Otogoloski sdelki GEK s Amtorgom," Ezh, 23 October 1928.
For the State Department's opinion on the IGE-Amtorg contract see Owen D. Young (chairman, GE) to Ralph M. Easley (chairman, executive council, National Civic Federation [NCF]), 29 October 1928, with attached correspondence between Young and NCF, RG 59, 611.1115-General Electric Co. Amtorg Contract/4-1/2.


25"Vashington ne vozrazhaet protiv dolgosrochnykh kreditov SSSR." On the continued importance of U.S. recognition of the Soviet government see "Soedinenyye Shtaty i SSSR," EZh, 26 October 1928; and "Biznes i diplomatia," Pravda, 26 October 1928.

26A standard exercise in this recurrent practice is "Protivorechiia amerikansko-sovetskikh otnoshenii," Pravda, 21 October 1928. For evidence on the Soviet government's extreme care in ensuring that foreign exchange resources would balance planned purchases abroad see "Protokol No. 142 zasedaniia SNK SSSR o postanovlenii SNK SSSR 'Ob opatile truda spetsialistov, priglashaemykh iz-za grannitsy dlia raboty v uchrezheniakh i predpriiaiakh Soiuza SSSR,'" 5 January 1926, Records of the USSR People's Commissariat of the Workers' and Peasants' Inspectorate (NK RKI SSSR), fond 374, opis' 1, delo 315, list 161, USSR Central State Archive of the October Revolution (TsGAOR SSSR), Moscow, USSR (hereafter TsGAOR SSSR, with filing information).

27This correspondence is located in Record Group 151, General Correspondence of the U.S. Bureau of Foreign and Domestic Commerce, File 032 (Russia), File 411 (Russia, Firms [2 boxes]), and File 448 (General Correspondence Files [2 boxes]).

28The concerted effort lasted until the middle of 1931, when the need for imports of machinery dropped dramatically, but the effort to win favorable credits was never entirely abandoned, logically enough. See "Zapis' besedy sovetskogo Polnomochnogo Predstavitel' stva SSSR vo Frantsii s predstavitelem amerikanskoi kompanii 'Dillon, Rid i Ko' Griffithom," 19 March 1928, DVP 11:177-78; "Khoziaistvennye sviazi SSSR s Soedinennymi Shtatami," EZh, 30 October 1928; "Amerika i promyshlennoe stroitel' stvo SSSR," ibid., 14 September 1929; "So swei energiia--za ozdorovlenie importa!" ibid., 25 March 1930; "Interes amerikanskih delovych krugov d SSSR rastet," Pravda, 31 July 1930; and "Za razvitie sovetsko-amerikanskoi torgovli," EZh, 1 February 1931, to name just a few. The classic exposition of Soviet officials' view is the Address by Mr. Saul G. Bron, Chairman of Board of Directors, Amtorg Trading Corporation, delivered at the luncheon meeting of the Export Managers' Club of New York, November 27, 1928 (New York, 1928).
29 See Hoff-Wilson, Ideology and Economics; and Filene, Americans and the Soviet Experiment.

30 See, for example, "Protokol zasedaniia Komissii STO, obrazovannoi postanovleniem STO ot 15 iunia po voprosu ob usilenii proizvodstva traktorov," 23 June 1928, TsGAOR SSSR, f. 374, op. 1, d. 374, l. 104; Egorov (Presidium, Supreme Council for the National Economy of the USSR [VSNKh SSSR]) circular letter, "Vsem ob'edineniam, trestam i mestnym organam VSNKh RSFSR," 7 March 1930, Records of VSNKh SSSR, f. 3429, op. 13, d. 2484, l. 2, USSR Central State Archive of the National Economy (TsGANKh SSSR), Moscow, USSR (hereafter TsGANKh SSSR, with filing information); and the Monthly Bulletin published throughout the period by the USSR Chamber of Commerce for Western Trade (Moscow).

31 See especially "Trezye golosa delovoi Ameriki," Za industrializatsiiu, 2 August 1930, for insight into Soviet officials’ rather perceptive understanding of divided and shifting opinions in the U.S. business world toward trade with the USSR. This argument should not be confused with an assertion that Soviet leaders correctly interpreted the political power and influence of American business. As I will argue in another chapter, they most certainly did not.

32 See Filene, American and the Soviet Experiment, 213.

33 Libbey, Alexander Gumberg and Soviet-American Relations, chap. 8; Filene, Americans and the Soviet Experiment, 214.

34 Filene, American and the Soviet Experiment, 104; "Who Is Getting These Russian Orders?" Business Week (19 February 1930), 35.

35 Fourteenth Annual Meeting of the Chamber of Commerce, 11-13 May 1926 (New York); Matthew Woll (acting president, National Civic Federation) letter to President Calvin Coolidge, 12 November 1926, Herbert C. Hoover Commerce Papers, box 429, folder: National Civic Federation, 1926-1928, Herbert Hoover Presidential Library, West Branch, Iowa (hereafter cited Commerce Papers, with filing information).


37 See Libbey, Alexander Gumberg, 143-44.

38 The figures for trade turnover between the United States and the Soviet Union can be found in American-Russian Chamber of Commerce, "Memorandum on American-Russian Trade," 24 June 1932, Gumberg Papers, box 10, folder: June 1 to July 31, 1932. For annual lists of ARRC
membership see "The American-Russian Chamber of Commerce Membership List," various dates from 1926 to 1933, in ibid., box 9-B. See also the correspondence between James P. Goodrich (former governor of Indiana) and various members of the ARCC in the Papers of James P. Goodrich, box 16, folder: Russia, American-Russian Chamber of Commerce, 1926-33, HHPL (hereafter cited Goodrich Papers, with filing information).

39This belief gained currency in the West during NEP, but some businessmen regarded the Five-Year Plan as more capitalist than socialist because of its concentration on large state-owned, horizontally and vertically integrated industrial enterprises, the strengthening of managerial control in Soviet factories, and the declining power (and standard of living) of the ordinary worker.

40Cooper, "Present Day Economic Conditions in Russia," June 1927, Commerce Papers, box 535, folder: Russia--General 1927-1928 & undated, HHPL.

41See E. C. Ropes (European Division, BFDC), Special Circular No. 162--Finance and Investment Division, "Foreign Credits to Soviet Russia," 28 November 1925, Commerce Papers, box 536, folder: Russia--Russian Trade 1923-1925, HHPL; and "Soviet Business Missions to Foreign Countries," Russian Economic Notes, no. 56, 22 November 1929, 5-6.


45On the reaction of U.S. business to the campaigns against Soviet imports that arose out of "dumping" and "convict-labor" accusations, see chapter ? of this work. See also, for example, ARRC, "The Facts about American-Soviet Trade," December 1930, Gumberg Papers, box 8-C, folder: December 1 to December 31, 1930; "Fishing in Russian Waters," Barron's 10 (28 July 1930): 16; and "We Bait Amtorg While Europe Makes New Drives for Orders," Business Week (30 July 1930): 5-6.

46See J. D. Mooney (General Motors Corporation representative in the USSR) to A. P. Sloan (president, GM), "Memorandum on Soviet Business Possibilities," 20 October 1930, Papers of Walter S. Carpenter, box 821, The Hagley Museum and Library, Wilmington, Delaware; Amtorg memorandum to U.S. Department of the Treasury, December 1930, Gumberg Papers, box 8-C, folder: December 1 to December 31, 1930.


49 See Libbey, Alexander Gumberg, 173-74. On this point I disagree with Hoff-Wilson (Ideology and Economics, 110-11), who asserts that while "protraders" became increasingly enthusiastic about trade with the USSR, their "ideological" attitudes about recognition went unaltered. I believe she mistakes the lack of public utterances in favor of recognition for private beliefs. Few businessmen or business associations wished to take a public stance in opposition to established government policy. The records of the ARCC make clear just how strongly pro-recognition sentiment grew among American "protraders" as the Depression dragged on and as Soviet purchases in the United States declined.
CHAPTER II
Americanism, Fordism, and Bolshevism
in the Five-Year Plan

When a nation and its leaders look to another country for a model of social and economic change, they most likely reveal as much about their own values as they do about their perceptions of the foreigners they wish to emulate. This is particularly true of the Soviet Union during the First Five-Year Plan, when both its leaders and much of the populace looked to the United States for inspiration and guidance in building a modern, industrialized society. Americans who visited the USSR in the years before the Five-Year Plan was launched were constantly amazed at the intense interest, fascination, and enthusiasm that the government and the people displayed toward them and their country. This admiration was even more astonishing in light of the fact that the United States was the only world power that still refused to grant political recognition to the Soviet state. Nowhere else, Maurice Hindus reported, was America so earnestly idolized. In the Soviet Union, another traveller remarked, "the word for industrialization is Americanization, and the passion to Ford-ize . . . is even stronger than the passion to communize it." \(^1\)
Hindus, a native of Russia, had expected Communist Russia to condemn capitalist America, but instead he discovered that to Russians, America implied competence, responsibility, punctuality, accuracy, and diligence. Official pronouncements in the press, and unofficial remarks by ordinary citizens, revealed that America was a place where people worked steadily and efficiently, with economy of materials and energy but also with daring inventiveness and a willingness to reject routine. To Soviets across the spectrum, America stood for mass production, the assembly line, and for the enviable fruits of those industrial icons: material plenty.\(^2\) To be sure, official propaganda did not ignore the darker side of American capitalism: exploitation of the working class. But these admonitions seemed barely to dent the more widespread belief that every American, workers included, was well dressed, owned a car, an apartment or even a house, a telephone, and a radio, and enjoyed such amenities as electricity, gas stoves, and ample time and money for leisure.\(^3\)

The enthusiasm for America and American methods at times reached excessive proportions, prompting complaints and warnings from real and self-appointed guardians of the Marxist-Leninist faith. Nevertheless, it had a solid ideological grounding in the works of Vladimir Lenin, founder and prophet of the Soviet system and state.\(^4\) It was Lenin, after all, who first posited the necessity of catching up with and overtaking the most advanced
capitalist countries. In 1918 he offered his now famous equation: "Soviet power + the order of the Prussian railroads + American technique and the organization of trusts + American public education etc. etc. ++ = socialism." And in 1923, when the Soviet Union entered its "reconstruction" phase of economic development, which sought to restore economic activity to the levels of prewar Russia, the leading theoretician of the All-Union Communist Party [VKP(b)], Nikolai Bukharin, declared that "we need Marxism plus Americanism" in order to resume the march toward socialism.

For the purposes of the Five-Year Plan, however, the most significant official justification for emulation of America came in February 1924, only a few weeks after Lenin's death, when Joseph Stalin gave a series of lectures designed to establish his credentials as an original thinker in Marxist ideology. Speaking to members of the party-state bureaucracy, which already was blossoming into an all-encompassing engine of political and economic control, Stalin sought to define the essence of the "Leninist" style in party and government work. For Stalin, who would preside over the frantic industrialization drive a half-decade later, the "Leninist style of work" was a combination of "Russian revolutionary sweep" and "American efficiency" [delovitost']. A convinced Bolshevik, Stalin of course would place Russian revolutionary sweep in first place. But if that component remained unchecked by American efficiency, it could well degenerate into the sort
of wild dreaming and scheming to which Russian Communists, unfortunately, were susceptible. "American efficiency," Stalin intoned, "is that indomitable force which neither knows nor recognizes obstacles; which continues a task until it is finished, even if it is a minor one; and without which serious, constructive work is impossible."\textsuperscript{8}

It might seem odd to contemporary American observers that Soviet officials made American delovitost' an essential ingredient of the Marxist-Leninist philosophy that was to guide the Communist Party's effort to construct a socialist state. But two things should be kept in mind. For one, the Soviet state emerged from World War One and the Russian Civil War with an economy that had completely collapsed, and with a population comprised overwhelmingly of peasants whose production methods had not entered the modern age. It also emerged with an ideology positing capitalism—and its achievements—as an unavoidable stage in mankind's progression toward socialism and then communism. This belief explains Leon Trotsky's thinking when he proclaimed, in 1924, that "Americanized Bolshevism will triumph and smash imperialist Americanism."\textsuperscript{9} For another thing, the fascination with America and American methods had a long history in Russia predating the arrival of the Bolsheviks to power.\textsuperscript{10}

That America, American methods, and American attitudes held widespread fascination for Russians and for Soviet officials becomes clear through even the most cursory examination of the Soviet press from the 1920s and early
1930s. What is less clear, however, is why American methods above all others seemed the preferred methods, and why the call to emulate American methods evoked such a favorable and earnest response among the rank-and-file elements of the Communist Party. The enthusiastic response of party cadres to seize upon American methods and use them to catch up with and overtake America demonstrates how useful that call actually was in the Soviet government’s industrialization drive. Indeed, it resonated throughout Soviet history at least until the days of Nikita Khrushchev, who promised his countrymen in 1961 that within two decades they would surpass the United States in per-capita production of milk, eggs, and meat.11

* * *

When Lenin pronounced his December 1920 formula "Soviets plus electrification equals Communism," he was admitting that Marxism was by itself insufficient to provide a goal for people who either were hostile to the creed or simply did not understand what it meant. In a letter to the head of the State Electrification Commission early in the year, Lenin requested a preliminary version of the electrification plan that would stress its political, not technical, aspects, and would provide a popular, clear task that could enlist the mass of people in the reconstruction effort.12 Evidently, even electrification was too abstract a concept, which helps explain why such Bolshevik luminaries as Trotsky, Bukharin, and Stalin sought to enlist the concept of Americanism in the cause.
Seen in this light, Soviet Americanism [Amerikanizm] becomes an effort in ideological transfer, an effort that might even be assigned more importance, insofar as results are concerned, than was the exercise in technology transfer that took place at the same time. After all, throughout the 1920s and for all but one of the four years of the First Five-Year Plan, it was Germany, not the United States, that supplied most of the foreign expertise and equipment that went into the massive industrialization drive. 13 And this is true despite the fact that during these very years Soviet politicians were loudest in their praises of Americanism and made their strongest efforts to imbue Soviet workers and industrialists with "American tempo" and "American methods.14

Although American engineers, technicians, and workers never were as numerous in the Soviet Union as German ones, it was Americanism that provided most of the energy, the ideological justification, and the tangible targets of the Five-Year Plan. In part this was due to the Soviet leaders' beliefs, common to many European peoples, that Americans were politically naive and indifferent, and as a result they would be less troublesome than their politically aware European counterparts. Another factor was the popular truism about Russia's and America's physical and geographical similarities, and the resulting view that the experiences of smaller European countries would be less appropriate to Soviet Russia's plan.15
Perhaps more important, at least to Soviet officials, was the content that filled out their understanding of Americanism. To them, Americanism in practice was the efficiency and productivity of American assembly lines: an industrial economy that had moved to the forefront of world science and technology and created the biggest, most modern industrial complexes. Americanism was free and universal education of both sexes and widespread polytechnical education; cost accounting, precise bookkeeping, and the rationalization of office procedures; factories that turned European peasant immigrants into skilled, efficient proletarians; and an open industrial management system that avoided the class- and rank-consciousness that bound European industry.16 All of these achievements, argued Stalin, were the achievements of a society that was freer than any other, save the USSR, of the remnants of feudalism.17 America was a land of standardized production for a mass market, which to the Soviet leadership made both economic and ideological sense: the plethora of stores selling innumerable high-quality consumer goods, without long lines, were enviable examples of how a society could equalize consumption.18

Descending from the ideological to the practical, economic level of interpretation, it becomes apparent that one of the major reasons for the emphasis on Americanism was that Soviet leaders were convinced that the United States had proved its technological and productive superiority during the First World War, when its highly
developed machine-tool industry and relative economic self-sufficiency tipped the scales in favor of the Allies. America's adoption of the new labor management techniques of Taylorism and Fordism was credited with enabling the United States to achieve this superiority, and in the mid-1920s a Soviet version, Gastevism, gave an ideological cover to what in essence was a Taylorist approach to production.19 Equally significant, the Soviet debates in the mid-1920s over the path industrialization should take saw conflict between those who favored emphasis on mining, metals, and machinery and those who argued for giving priority to the "science-based" sectors of chemicals and electrical equipment. The former group prevailed, using as their example the "American model" of industrialization, whereas their opponents had pointed to the "German" model.20 By 1930, the emphasis on American methods had penetrated all levels of the political-economic apparatus. Soviet Commissar of Trade Anastas I. Mikoian spoke for officials high and low when he asserted that "in the scale of its economy, in the methods of production, America is most attractive to us and we are more interested in establishing the closest economic ties precisely with America and also borrowing all the advanced achievements of American technology, applying them to our conditions."21

Borrow and apply the Soviets did. American technological imports were so popular in the Soviet Union during the 1920s that Henry Ford became a well-known figure to the simplest of Russian peasants. In 1913 there had
been only around six hundred tractors in the whole Russian Empire, mostly of German make; by 1930, there were sixty thousand, three-quarters of which had been manufactured in the United States. Most of these, moreover, were the ubiquitous Fordson tractor. These tractors, and then the subsequent enthusiasm surrounding the construction of an automobile plant based on a massive technical-assistance agreement with the Ford Motor Company in 1929, brought the popular fervor for Ford and Ford’s products to a high point.22

The widespread popularity in the Soviet Union of Henry Ford had its counterpart in official enthusiasm, shared by the economic planners and industrial directors, for "Fordizm" as a set of production methods. In a word, Fordizm was the rationalization of the entire production process, and to Soviet officials Ford’s factories epitomized rational, cost-effective use of material and human resources. In economic terms this meant a strict attention to detail on the assembly line, the substitution of cheaper materials wherever possible, the elimination of waste, be it a defective product, an unused byproduct, or an idle worker, and at the same time a willingness to depart from slavish adherence to standardization when it was useful or necessary. As this last point implies, Soviet economic policymakers thought of Fordizm as a rigorous but still flexible productionist method, and this emphasis on flexibility led them inescapably to placing great emphasis on training workers who could, as one Soviet
engineer put it, "observe the principles" of rationalization while remembering that "they are not infallible; each one must be adapted to a given situation."\(^{23}\)

Just how Soviet workers would be steeped in the attitudes and practices of Fordizm was an open question before 1928. As we shall see, in spite of all the words, energy, and resources that Soviet officials devoted to inculcating a "Fordist" attitude in Soviet workers, their efforts often fell afoul of more immediate problems rising directly out the manner in which the Five-Year Plan was implemented. Nevertheless, they made a genuine effort to foster a "Fordist" approach to work, and one of the quickest ways, naturally, was to import the approach from abroad. As early as 1925, the head of VSNKh, Feliks Dzerzhinskii, thought that it was "necessary to occupy ourselves with the study and the application in practice of the methods of Ford" and believed that "it would be worth hiring from abroad practitioners, organizers of Fordism."\(^{24}\)

Not long after this note was penned, the influx of foreign specialists and skilled workers began, bringing to every branch of the Soviet economy experts in the techniques of Fordism and Taylorism. It should be kept in mind that Soviet officials had no intention of slavishly following every American practice or innovation. As a lead editorial in Torgovo-promyshlennaia gazeta put it early in 1928, "we have long since outgrown the period of cultural infancy, when the only source of cultural growth was the
importation of foreign science and technology in a finished, so to speak, form." Nonetheless, there was much to learn, lessons to be applied to practically every sector of the economy. Soviet planners had to identify the specific technologies they considered most suitable to their own economy. They had to organize shop floors and assembly lines around these technologies, and then train a cadre of managers who would understand how the production process operated and be able to maintain it, which in turn required the creation of a class of skilled engineers and a system of education to ensure their continued supply. Moreover, there was the problem of training workers and acclimating them to the rhythms of industrial labor and the demands of "labor discipline" (trudovaia distsiplina). This task required what one Soviet engineer called a "cultural campaign," which lasted throughout the Five-Year Plan, to "break the petty-bourgeois, self-seeking psychology that workers from the village bring" to industrial enterprises. The results of that psychology were evident in the engineer's next sentence, when he complained that "the drop in labor productivity and the lowering of discipline is beating us from opposite ends."* * *

Identifying the specific technologies to be imported was the easiest part of the problem for Soviet economic policymakers. The Five-Year Plan's ambitious developmental agenda already provided officials with a rough guideline for determining what equipment and skills were needed.
Although practically every sector of the industrial economy would eventually benefit from an infusion of American machinery, patents, technicians, or skilled workers, particular emphasis fell on five critical, interrelated areas where American industry was thought to excel: metallurgy; machine-tools; electrical; transportation; and industrial design and engineering. Although Soviet-American economic relations involved a broad variety of contacts across the entire economic spectrum, it was in these five areas that Soviet officials thought they had the most to learn, and America the most to offer.\textsuperscript{30}

One reason Soviet planners looked to America for help in creating an integrated metallurgical industry was their belief that American metallurgy had attained the highest degree of technological sophistication in the world. Whether it be the modernization and expansion of metallurgical enterprises in the Ukraine’s Krivoi Rog region (Donbas) or the creation of entirely new complexes in the Urals (Magnitogorsk) and in Siberia’s Kuznetsk Basin (Kuzbas), officials in Vesennkha assigned a critical role to American firms and engineers that had long, successful experience in the industry. Stuart, James & Cook of New York had eleven contracts with various Soviet organizations to rehabilitate the coal fields of the Donbas, and one of the American firm’s chief engineers, Clarence T. Starr, served on the board of Donbas State Coal Trust in an advisory capacity.\textsuperscript{31} In addition to other large contracts, the Freyn Engineering Company of Chicago took on the task
of designing and equipping a large steel plant in the Kuzbas and agreed to design and supervise the construction of eighteen others, as well as reequip forty existing plants.³² Like many other American firms, it sent engineers to sites throughout the Soviet Union, supplied the central Soviet design bureau, Gipromez, with its own design engineers, and agreed to place Soviet engineers and skilled workers in various American factories to show them how modern metallurgical plants operated.³³ And when delays in launching the colossal metallurgical complex at Magnitostroi threatened to torpedo progress in a variety of other industrial sectors that would depend on production there, Soviet officials cut through the morass by engaging the Cleveland engineering firm, Arthur McKee Company, to provide blueprints for the entire complex and send 250 of its engineers to oversee construction.³⁴

This was no fleeting, summertime romance: Soviet officials responsible for metallurgy threw themselves wholeheartedly into the arms of their American counterparts in order to learn the latest techniques in this branch of industry. Typical of this effort was the trip to Europe and America of V. S. Gulan, deputy chairman of Vesenka’s Directorate of the Non-Ferrous Metals Industry. The European portion of Gulan’s trip produced nothing, but he returned from America packing three technical-assistance agreements covering virtually every aspect of the mining and processing of gold, mercury, molybdenum, and tungsten: the Archer-Wheeler company agreed to help the Soviets
develop their large deposits of aluminum, copper, nickel, and zinc, and to draw up plans for the construction or reequipment of smelting plants; both Archer-Wheeler and the Southwestern Engineering Company gave the Soviet directorate complete access to their patents and industrial archives; and the two firms, along with a third, sent "highly skilled engineers to give direct supervision to the planning of new enterprises and to offer production consultation at operating factories." In addition to these agreements, Gulan managed to engage the services of seventy-five American specialists for work in Soviet mines and metallurgical complexes.35 This episode illustrates the belief of Soviet planners that in metallurgy, American technology was "not only going, but actually running forward."36

Much the same could be said about the technological level of the American machine-tool industry, which the deputy director of "Metallimport" said "qualitatively equals and in many cases undoubtedly exceeds" European levels.37 After a large delegation of Soviet planners from the central machine-building factory trust visited Germany and America, they reported that German companies seemed unable to engage in specialized, concentrated production and therefore would not be suitable partners in building up the Soviet industry. American companies, however, "spare no expense in organizing massive, serial production," had succeeded in bringing a high degree of mechanization to their machine-tool industry, and created an industry
unmatched for its "significant reductions in the cost of production and improvements in the quality of products."³⁸

Knowing that the success of the Five-Year Plan and the future self-sufficiency of Soviet industry depended upon the creation of a viable domestic machine-tool sector, Soviet planners not only concluded dozens of technical-assistance agreements with American firms specializing in this field but also made a point of gaining access to the designs and blueprints of all production machinery of U.S. firms they were dealing with.³⁹ Soviet sources hint at a prolonged, unsuccessful attempt to persuade "the largest machine-building firm" in America to agree to just such a contract and admit the craftiness of that company, which preferred instead to make greater profits by forcing the Soviets to buy its machinery.⁴⁰ As a result, Soviet planners were forced to conclude dozens of smaller agreements that, although more costly than a single, all-encompassing agreement would have been, still provided them access to machinery, designs, and engineering expertise. And perhaps as important, these agreements enabled the Soviets to study what they regarded as the "astounding rapidity" with which American machine-tool companies were able to bring innovative manufacturing processes into production.⁴¹ So determined were Soviet planners to understand the keys to American success in this field that they considered creating a special technical bureau in Amtorg's offices in New York, composed of Soviet and American metallurgical engineers and specialists, that
would "become a channel for American technical ideas into our industry."42

This same motive animated Soviet officials seeking American help in developing the electrical industry.43 D. F. Fridman, the head of the industrial sector of the Soviet Electric Technical Trust (Glavelektro), asserted that his agency preferred dealing with American companies because "the electrotechnical industry of the USA in both extent and methods of production far surpasses" that of Western Europe, where the industry was "feverishly rebuilding itself . . . on the basis of American practice."44 Lenin himself had assigned a political significance to electrification in the earliest days of the Soviet state, but with the initiation of the Five-Year Plan, this sector of the economy assumed even greater significance: without a rapid expansion of electric-power generation, and without mastering the complexities of designing and building the machines that either produced or utilized that power, the industrialization program simply would not succeed. This necessity, plus the widespread belief in the superiority of the American electrical industry, explains the large number of technical-assistance agreements concluded with American firms.

The contract with International General Electric in 1928 was only the largest of a variety of agreements that Soviet electric-industry officials concluded with American firms. A contract with RCA and a supplemental agreement with IGE provided for exchanges of patents and designs for
electrical devices; the Westinghouse Company agreed to provide a variety of electrical equipment, plus designs; and all these firms, plus other leading U.S. companies such as the Dwight P. Robinson Company agreed either to accept Soviet engineers as students in their factories and laboratories or to send their own engineers to supervise the construction of generating stations, the placement of machinery, and the initial organization of production at factories and power stations. Almost all Soviet hydroelectric and coal-fired electric stations had their complements of American engineers supervising construction and overseeing production. Again, the purpose of dealing mainly with American firms was to hasten the establishment of a Soviet electrical industry that was technologically up-to-date, cost-effective, and able to sustain further technological progress.

A similar goal lay behind Soviet interest in forging close ties with American companies involved in transportation. Soviet fascination with Henry Ford and their admiration of his spectacular achievements in mass-production techniques is well known, and Ford’s involvement in the Soviet automotive industry will be dealt with more fully in a later chapter. Just as important, however, was Moscow’s desire to duplicate the tremendous expansion then occurring in America’s road network and its innovations in railway signalling, all of which had important economic and military implications. Thus the technical-assistance agreements that Soviet planners concluded with the Ford
Motor Company, Hercules Motor Company, the Electric Auto-
Lite Company, the Baldwin Locomotive Works, and the
engineering firms Austin & Company, Albert Kahn, and Arthur
Brandt, to name just a few, contained the usual terms
giving the Soviets access to modern equipment, the
 corresponding patents and designs, as well as on-the-spot
assistance from American experts and on-the-job training in
American factories. 49

Almost all of these technical-assistance agreements
granted Soviet economic trusts access to the "know-how"
that Soviet officials believed underlay American industrial
and technological prowess. It should not be surprising,
then, that a key element in the Soviet Union's campaign to
"Americanize" its industry was a concerted effort to tap
the engineering experience of American firms. No single
agreement could satisfy this particular goal, for it
involved a long-term effort to expose Soviet planners,
engineers, and skilled and ordinary workers in every sector
of a burgeoning economy to the work practices and attitudes
of their American counterparts. The need to provide Soviet
workers and technical specialists with practical experience
in the ways of American engineering explains why Soviet
officials so often arranged to have American engineers work
in Soviet factories and planning agencies, and why they
sent so many of their own specialists to American plants
and engineering firms. 50

To be sure, similar arrangements were made with German,
British, and other European firms, but to Soviet officials
"American engineering firms in particular possessed certain distinct advantages" because they "supplied a large internal market . . . based on mass-production, on standardisation and on the principle of interchangeable parts." Just as important, American firms seemed less secretive than their European counterparts and were willing to let the Soviets "learn the 'secrets of the trade.'"51 One Soviet engineer claimed that American businessmen, whether industrialists or engineers, "almost always opened the doors of their enterprises" to Soviet workers and specialists, and permitted them to stay or work "as long as necessary" to learn their trade.52

As this suggests, although the recruitment of American engineers and technicians was a top priority of economic planners in the center, enthusiasm for the policy ran deep in Soviet industry, particularly among directors of trusts in Moscow and of construction sites and enterprises in the provinces. Consider, for example, the original plans for the Russian Republic's State Construction Trust (Strojob"edinenie) in late 1929, which called for the employment of 572 foreign specialists, among whom were 178 engineers, 81 technicians and journeymen, and 313 skilled workers. This plan might well have been realistic in April 1929, when the Five-Year Plan was adopted, but by mid-1930 the party was shouting for the fulfillment of the Five-Year Plan in four years, construction and production targets had been raised arbitrarily, along with the pressure to exceed them, and expansion was stretching the material and labor
resources of the Soviet Union to the limit. In this frantic atmosphere, the personnel director of Strojob"edinenie decided that the number of foreign engineers assigned to his agency was "completely inadequate," and he petitioned Vesenska for extra funds for a "massive involvement of foreign specialists (above all Americans)" in the work of his trust. Although Vesenska rejected the request in its original form, Strojob"edinenie eventually managed to hire 1710 additional foreigners.53

* * *

In spite of the USSR's worsening balance-of-payments in 1930, Vesenska assigned Strojob"edinenie the funds it needed to hire the extra foreigners because there seemed no other way to ensure that the trust would meet its minimal targets. Strojob"edinenie certainly asserted that this would be the result, and during the Five-Year Plan countless trusts and factories would use this same ploy to wring money from Moscow for hiring American specialists or sending their own people to America.54 I suspect that Soviet factory and trust directors often turned to foreign expertise and foreign equipment because doing so offered a reliable, expedient alternative to production and management problems that they should have been able to solve themselves or in concert with their Soviet colleagues.55 Working out problems on their own, however, would have required time and resources, not to mention the cooperation of their colleagues, and all three were factors that Soviet directors simply could not take for granted.
during the chaotic years of the plan. Even after the First
Five-Year Plan was "successfully" completed, moreover,
development had not yet progressed to the point where
Soviet industry could supply itself with all its basic
needs.56 When we combine this fact with the desperate need
to fulfil targets, often unrealistic ones, imposed from
above and the almost mystical faith in the quality of
American goods and expertise, we begin to understand why
forging contacts with American industry became such an
important and widespread practice.

This tells us very little, however, about whether the
Soviet-American economic relationship served top Soviet
policymakers' larger goals of building a modern, relatively
self-sufficient, and technologically sophisticated
industrial economy and infusing it with the ideals,
attitudes, and practices of "American technique." These
are questions to be kept in mind as we explore the Soviet-
American relationship in greater detail, but the answers
already suggest themselves. The primary task of the First
Five-Year Plan was to lay the groundwork for a modern,
industrial economy, and there is no doubt that Soviet
officials succeeded in this regard. Yet the way they went
about it, resorting to a centrally-planned economy that
stressed the attainment of crude production targets, to a
significant degree undermined the effort to instill new
values in Soviet managers, technicians, and workers. It
might even be fair to say that emphasis on fulfilling the
plan rendered "Americanized Bolshevism" unrealizable from
the start. Certainly Stalin and his senior advisers wanted Soviet industry to become as efficient, productive, and innovative as the American economy, and they devoted enormous sums to importing not only American technology but also American technique. But Soviets who had to carry out the plan, either at the helm of large industrial trusts or on the shop floor, quickly learned that deadlines and targets mattered most of all, while the way they were achieved was a secondary consideration.

In practice, then, Amerikanizm would be stripped of much of its original content during the industrialization drive, and what remained would only be the outward appearances of the old ideal. From 1928 to 1933 massive, integrated industrial complexes equipped with the latest word in technology would spring up across the Soviet landscape, but they would never match the efficiency and productivity of American factories. Soviet industrial management during the First Five-Year Plan became a fairly accessible avenue of upward social mobility for talented individuals, but the measures of success varied widely during these years and were always subject to ideological and political campaigns that had nothing to do with economic indicators. This, in turn, subjected Soviet managers to risks quite beyond their ability to influence, let alone control. And, finally, industrialization created an enormous working class out of peasant raw material, and in the long run acculturated this class to the rhythms of a life centered on the factory. It was hardly the sort of
efficient proletariat that Soviet planners had envisioned, however, for the command economy never provided the sort of material and educational incentives that the earliest Soviet planners had promised.

What began as a broad and multifaceted assault on traditional, peasant Russia ended in a concentrated attack on a single, isolated sector. Instead of remaking society by transplanting American methods and technique to the Soviet economy and instilling American attitudes in Soviet workers, the Kremlin dragged society along on a forced-pace march down the narrow path of technology transfer. Not surprisingly, much of the meaning was lost in the translation; however, not all was lost. The marriage of American technology to the Five-Year Plan produced some interesting offspring that had characteristics of both parents. In a later chapter I will assess more fully the results of Soviet efforts to adopt American technology and American technique. Before attempting that analysis, however, we must look more closely at the specific details of the Soviet-American economic relationship, in particular at some of the more significant technical-assistance agreements that formed the heart of economic links between the two countries.


3 Theodore Dreiser, *Dreiser Looks at Russia* (New York, 1928).

4 For example, Henry Ford’s 1922 autobiography, *My Life and Work*, was reprinted in Moscow four times in 1924 alone, and the eighth reprint edition appeared in 1927. In the third Russian-language edition of Ford’s 1928 *Today and Tomorrow*, the Soviet preface contained a warning against the infatuation with Ford (of which this third edition was an example!). See also Il’ia Ehrenburg’s *Trest D. E.* (Berlin, 1925).


8 Ibid., 188.


10 See Rogger, "America in the Russian Mind."


14 K. Zelinskii and I. Sel’vinskii, eds., *Biznes: Sbornik literaturnogo tsentra konstruktivistov* (Moscow, 1929), 50-64.


18Dorfman, *V strane*, 50-52. It would be interesting to compare the Soviet version of Americanism with the postwar West European version Charles Maier discussed in "Between Taylorism and Technocracy: European Ideologies and the Vision of Industrial Productivity in the 1920s," *Journal of Contemporary History* 5 (Spring 1970): 27-62. Without explaining what I mean, I can say here only that the two were different: Western Europe’s version was almost entirely "productionist" and did not seek to overhaul society completely.


23"Fordizm i primenenie ego metodov v SSSR," *TPG*, 29 January 1928. See also "Ispol’zovanie inostrannogo tekhnicheskogo opyta," ibid., 28 January 1928; and "Ispol’zovanie inostrannoi tekhniki. Pis’mo prezidiuma VSNKh SSSR," *EZh*, 5 July 1928.

24"Zapiska F. Dzerzhinskogo V. L. Lederu i V. I. Mezhlauku, 7 noyabria 1925 g.," *Voprosy istorii KPSS*, 1977, no. 9:118.

25"Ispol’zovanie inostrannogo tekhnicheskogo opyta," *TPG*, 28 January 1928. "Culture" (*kul’tura*) has connotations in Russian that are far more encompassing than the English equivalent. A better sense of the word’s subtle shades of meaning would be conveyed through the use of "cultivated," and it applies to a variety of situations involving a person’s conduct, education, outlook on life, and so on. To call even the coarsest Russian peasant "uncultured" would be a grave insult.

26See, for example, "Opyt proizvodstvennoi praktiki v odnom iz vtorov S.-A.S.Sh.," *Pravda*, 11 May 1929; an article by Professor Pinkevich, rector of Moscow State University, "Chem uchit opyt amerikanskoi shkoly? Za bolee tesnoe ob’edinenie shkoly i proizvodstva," *EZh*, 26 October 1929; and "Problema kadrov v 1929-30 godu," *Pravda*, 30 November 1929.

"Zakliuchitel'noe slovo tov. Prokof'eva na utrenem zasedanii 4-go Vsesoluznogo S"ezda Inzhenerov i Tekhnikov," 18 April 1929, TsGAOR SSSR, fond 5548, Records of the All-Union Intersectional Bureau of Engineers and Technicians (VMBIT), op. 8, d. 7, l. 87.


Plan priglasheniia inostrantsev v gospromyshlennost' SSSR i respublik na 1929/30 oper. god," 28 September 1929, TsGAOR SSSR, f. 5548, op. 8, d. 21, l. 1. For examples, by no means inclusive, of technologies and skills to be learned from Americans and American industry see also "Inostrannaiia ekspertiza na Svirskom stroitel'stve," TPG, 10 February 1928; "Zakupka importnogo oborudovaniia dlia Turkustano-Sibirskoi zh. d.," ibid., 22 March, 1928; "Novoe v rybnoi promyshlennosti SASSh," ibid., 5 July 1928; "Osvoenie zagranichnykh mashin v promyshlennosti (po dannym INO VSNKh SSSR," ibid., 12 September 1928; "Chem' uchit amerikanskaiia tekhnika," EZh, 18 December 1928; and the STO's draft decree, "O traktoroiispol'zovaniu i tekhpomoshchii," 27 April 1928, TsGAOR SSSR, f. 374, op. 1, d. 374, l. 104.


"Soglashenie s firmoi Frein o tekhnicheskoi pomoshchi," TPG, 8 August 1928; "Amerikanskaia tekhnicheskaiia pomoshch' sovetskoi promyshlennosti," Pravda, 22 March 1929.

In addition to the sources cited in the previous note
see "Podgotovka k stroitel'ству novykh metallurgicheskikh zavodov," Pravda, 19 January 1929; "Metallopromyshlennost' na Ukraine zadaniia ne vypolnila," EZh, 4 April 1929; "Proektirovanie novogo metallurgicheskogo zavoda," Pravda, 1 August 1929; "Ostryi nedostatok kirpicha, nuzhny inzhenery i tekhniki," ibid., 29 October 1929; "Gigant sotsialisticheskoi industrii v Sibiri," ibid., 1 November 1929; and "Opyt ispol'zovaniia tekhpomoshchi amerikanskoi firmy 'Freina','" ZI, 4 June 1930.

34"Dogovor o tekhnicheskom sodeistvii Magnitostroi," EZh, 26 March 1930; "Magnitostroi: Amerikanskaya tekhnicheskaia pomoshch'," ZI, 23 May 1930. Note the date: March 1930. Magnitostroi, as well as two other important integrated metallurgical complexes (Krivorozhskii and Tel'besskii) had been on the drawing board since mid-1927 and originally were intended for start-up in late 1932. For initial plans (and problems) on creating a metallurgical industry see "Postanovlenie Kollegii NK RKI SSSR po obsledovanii stroitel'stva novykh zavodov metallopromyshlennosti," 28 April 1927, "Vyvody po dokladu NK RKI SSSR," 30 April 1927, and "Doklad VS NKh i Gosplana pri zasedanii STO ot 05.18.27 o kapital'nom stroitel'stve otdel'nykh zavodov metallopromyshlennosti," 18 May 1927, all in TsGAOR SSSR, f. 374, op. 1, d. 358, ll. 29, 32-46, 6-15. See also "Amerikanskii proekt Tel'besskogo zavoda," TPG, 29 June 1928.


36"Likvidируем нашу tekhniko-ekonomicheskuiu otstalost','" Pravda, 11 January 1929.

37Grovdev, "Mahiny i metalli," EZh, 30 October 1928, special supplement "Khoziaistvennye sviazi SSSR s Soedinennymi Shtatami."

38"Ispol'zovanie amerikanskoi tekhniki v sovetskom mashinostroenii," Pravda, 10 November 1929.

39Clauses giving Soviet trusts access to American patents, blueprints, and industrial archives were written into virtually all of the most prominent technical-assistance agreements. Perhaps the most significant such clause was the one contained in the IGE-Amtorg contract, since IGE designed and manufactured countless types of machinery and industrial and consumer products related to the electrical industry. For a copy of the IGE-Amtorg contract see RG 59, 661.115-General Electric Co Amtorg Contract/10. See also "Novyi dogovor s 'Dzheneral' Elektrik Kompanii','" EZh, 6 March 1929.

40"Peregovory s riadom amerikanskikh firm," EZh, 25 May 1929. On the critical importance of the machine-tool
industry for the larger success of the plan see the speech of Aleksei Rykov to the Sixteenth Congress of the VKP(b), 23 April 1929, in 16-aia konferentsiia VKP(b): Stenograficheskii otchet (Moscow, 1929), 63-64.

41The quote is from a meeting of the Presidium of VSNKh, SSSR, called to hear a report of M. G. Gurevich, deputy chairman of Amtorg, "Promyshlennost' eshche ne nauchilas' ispol'zovat' inostrannyi tekhnicheskii opyt," EZh, 8 June 1929. For agreements with such American firms as the Radio Corporation of America, the Sperry Gyroscope Company, the Taft, Pierce Company, the Eastman Construction Engineering Company, and the Newport Ship Building and Dry Dock Company, see Gurevich’s report and "Pervoocherednye zadachi sovetskogo mashinostroeniia," Pravda, 5 January 1929; "Po mashinostroeniiu vse proekty utverzhden," EZh, 7 April 1929; and "Tekhnicheskaia pomoshch' amerikanskikh firm sovetskomu mashinostroeniu," ibid., 25 May 1929.

42See Gurevich’s report to the collegium of Main Directorate of the Machine-Building Industry in EZh, 25 May 1929; and the discussion on 8 June 1929 at the Presidium of VSNKh, cited in the previous note.

43For a general discussion of Soviet views on American achievements in this sector of the economy see "Elektroteknicheskaiia promyshlennost' Ameriki," TPG, 20 July 1928.

44"Ispol'zovanie amerikanskogo opyta rashei elektro-

promyshlennost'iu," EZh, 7 March 1929.

45In addition to the source cited in the previous note see "Vokrug dogovora Glavelektro s "Dzheneral' Elektrik'"," EZh, 7 February 1929; "Novyi dogovor s 'Dzheneral' Elektrik Kompanii','" ibid., 6 March 1929; "V Amerike zakazany 4 turbogeneratorda dla Dneprostroia," Pravda, 31 March 1929; "'Dzheneral' Elektrik' predostavliaet nam dla ispol'zovania vse svoi patenty i tekhnichskie dostizheniiia," EZh, 4 April 1929; "Ispol'zovanie amerikanskoi tekhniki," ibid., 5 April 1929; "Amerikanskaia delegatsiia v Moskve: Poseshcheniia Glavelektro," ibid., 21 July 1929; and "Kak idut raboty na Dneprovskom stroitel'’stve," Pravda, 28 July 1929.

46See "Razmeshchenie zagranichnykh zakazov dla elektrostroitel'’stva," TPG, 13 January 1928; and "Uchastie amerikanskikh firm v elektrostroitel’stve SSSR," EZh, 12 February 1929.

47This goal comes across in most of the sources cited above, but is spelled out clearly in "Nauka i tekhnika: Svetcvoe khoziaistvo i ratsionalizatsiia proizvodstva," Pravda, 1 January 1928.
See two series of articles by N. Osinskii, one under the general title "Amerikanskii avtomobil' ill russkaa telega?" in Pravda, 20, 21, and 22 July and 14, 17, 27, and 28 August 1927; and the other titled "Ocherednye voprosy nashego avtostroeniia," in ibid., 7, 9, and 11 June 1929; "Zametki ob avtomobil'nykh delakh," ibid., 20 March 1929. On reasons for dealing mostly with American firms in practically all sectors of the railway industry see "Zakupka importnogo oborudovaniia dlia Turkestano-Sibirskoi zh. d.," TPG, 22 March 1928.

See chapter ? for the technical-assistance agreements with Ford and the three engineering firms. See also "Avtomobil'noe stroitel'tstvo SSSR i uchastie v nem zagranichnykh firm," Pravda, 17 May 1928.

See the address by Saul Bron (chairman, Amtorg) before the Export Managers' Club of New York, 27 November 1928, a pamphlet circulated by Amtorg (copy in Library of Congress, Washington, DC); and "Tekhnicheskoie rukovodstvo promyshlennost'iu," Pravda, 24 May 1929. Lists of Soviet technical specialists sent to the United States, and of Soviet trusts and factories permitted to hire foreign specialists and engineers, can be found in TsGANKh SSSR, f. 3429, op. 13, dd. 2483, 2484, and 4157.


G. V. Turbin, "Nashi tekhnicheskie sviazi s Soed. Shtatami," EZh, 30 October 1928.

See Vasil'ev (Stroiob"edinenie VSNKh SSSR) v INO Soiuzstroia "Ob"iasnitel'naia zapiska k planu na 1930/31 op. q. priglasheniia inostrannykh spetsialistov po Stroiob"edineniuu VSNKh RSFSR," 27 August 1930, TsGANKh SSSR, f. 3429, op. 13, d. 2483, l. 34. See also Vasil'ev to the Foreign Department (INO) of Soiuzstroii, 10 September 1930, ibid., l. 33.

See Vasil'ev, "Ob"iasnitel'naia zapiska," TsGANKh SSSR, f. 3429, op. 13, d. 2483, l. 34. Other examples will be discussed later on, but in general evidence for this assertion is located in TsGANKh SSSR, f. 3429, op. 13, in dela numbered in the 2400s.
Top policymakers in Moscow were convinced this was true. See, for example, "K voprosu o ratsionalizatsii importa," TPG, 14 February 1929; "Na strazhe nezavisimosti SSSR," ZI, 1 May 1930; and "Iz doklada neofitsial’nogo Predstavitelia SSSR v SShA v Narodnyi Komissariat Inostrannykh Del SSSR," 1 July 1931, DVP 14:403-9.

Nor was it intended to. For insights into Soviet planners’ expectations of reduced but still important dealings with foreign firms as a way to retain access to innovative technology and expertise see "Rezoliutsii XVII s"ezda VKP(b) ‘O vtorom piatiletnem plane razvitiia narodnogo khoziaistva SSSR (1933-1937 gg.),' January-February 1934, Direktivy KPSS 2:397; and Vasilii I. Kas’ianenko, Zavoevanie ekonomicheskoi nezavisimosti SSSR (1917-1940 gg.) (Moscow, 1972).
CHAPTER III

The Soviet Search for American Technical Assistance

The Soviet government's first major breakthrough in its efforts to secure comprehensive access to the industrial know-how of a leading American manufacturer came in October 1928, when Amtorg, on behalf of the Soviet Electro-Technical Trust (Glavelektro), signed a contract with the International General Electric Company worth $26 million. The agreement, which had taken over a year to negotiate, stipulated a five-year period during which IGE would supply Glavelektro with a variety of electrical equipment ranging from electric motors and generators to radios, lamps, and a variety of other devices that utilized electric power.¹ As the principal purchasing agent of the Soviet government, Amtorg was to specify within twenty-four months the precise details of its first order, the value of which had to be at least $5 million and no more than $10 million. Orders could be for any machinery or parts manufactured by the General Electric Company and its subsidiaries in the United States. Amtorg was required to pay 25 percent of the total value of each order in U.S. currency at the time of receipt at American ports, after which it would pay four semiannual installments at 9-1/4 percent interest. In effect, the agreement granted Amtorg two-year credits, by far the
longest terms ever granted a Soviet concern by an American corporation.²

Although the Soviet government played up the political
significance of the agreement almost to the exclusion of
its economic importance, the fact remains that the IGE-
Amtorg contract was a milestone in the development of the
Soviet electrical industry and a crucial component of the
First Five-Year Plan, even though that plan had not yet
been approved in its final form. We already have seen how
the Soviet government assigned political significance to
electrification of the countryside. In strictly economic
terms, however, every other sector of the Soviet economy
depended in some way upon the development of the electrical
industry. Before launching the Five-Year Plan the Soviet
Union had embarked on a massive expansion of its electric-
generating capacity, the key component of which was the
construction of several hydroelectric generating stations
on the Dnepr, Volkhov, Oka, and Svir' rivers, to name just
a few.³ Although Soviet construction agencies performed
the bulk of work and provided most of the materials that
went into these dams, the critical turbines, cables, and
other sophisticated components came from Western,
particularly American firms.⁴ Colonel Hugh Cooper, the
American supervisor of the Muscle Shoals project, became
chief engineer of the Dneprostroi project, which at the
time was the largest dam ever built.⁵

Expansion of generating capacity, however, would have
been meaningless without the ability to put the electrical
power to use, and it was in this area that the IGE contract
had its greatest impact, as Glavelektro had hoped. Even
before the agreement with IGE, Glavelektro had spent over
sixty million rubles (roughly $30 million) on imports of a
variety of motors, turbines, and other electrical
machinery.6 More than half of this sum went to purchases
from American firms, which the Soviets thought produced the
most technologically advanced and reliable equipment.7
American machinery tended to be more expensive than
European products, but officials in Glavelektro saw other
advantages to be gained from forging closer ties to the
American electrical industry. "Conditions of
electrification in the USSR," according to one Glavelektro
report, were "to a great extent analogous to those in
America," where a continental market gave rise to a
sprawling power grid and large-scale production of both raw
materials and finished goods designed to satisfy that
market. Equally important, given the unskilled human
material with which Soviet economic policymakers had to
work, American electrical products were designed to be
"accessible to untrained workers."8

In the summer of 1928 a group of officials from
Glavelektro went to the United States to inspect operations
at the plants of two of America's largest electrical
equipment manufacturing companies, General Electric and
Westinghouse. Their impressions, published in the official
newspaper of Vesenkha, were devoted almost entirely to the
achievements of GE's factories and the lessons the Soviet
electric industry could learn from them. Everywhere members of the delegation looked they saw methods of production, research and development, and supplying power over long distances that ought to be adopted by Soviet industry. They were captivated by GE's world-renowned laboratory in Schenectady, which they saw as a spawning ground not only of innovative products but also of highly trained and innovative personnel. Be it the manufacture of transformers, turbo-generators, and rotors, the mastery of high-voltage transmission, the production of efficient cables for telephone and telegraph communications systems, streetlights, and electric railways, or the invention and mass-production of innumerable consumer goods, the officials and engineers of Glavelektro believed that GE's products and its methods would best answer Soviet needs.9

The contract of October 1928, however, gave Glavelektro access only to the American corporation's finished goods, not its expertise in either manufacturing those goods or putting them to proper use. Gradual acquisition of such expertise through trial-and-error was something that Glavelektro could not afford in the boilerroom atmosphere of rapid industrialization, so in early 1929 it authorized "Energostroi" (a subordinate trust responsible for the construction of power plants and hydroelectric stations), to open negotiations with IGE aimed at securing that know-how at a single stroke.10 The result was a second agreement that came much closer to the Soviet ideal of what "technical assistance" should involve. This $5 million,
ten-year agreement, signed on 1 March 1929, gave Glavelektro access to GE patents for a broad range of devices and machines used in the generation, transmission, and utilization of electricity, as well as license to produce such machines for use within the territorial limits of the USSR. Just as important, from the trust’s point of view, IGE agreed to provide Glavelektro with its "experience and information on designing, engineering, technical and manufacturing data." IGE would allow up to ten Soviet engineers to study in its factories and labs, and would send its own engineers to the Soviet Union to supervise the installation of imported machinery and to assist in the "organization, management and development of the electrical manufacturing and other business of the Trust."\textsuperscript{11} As the deputy chairman of Glavelektro pronounced upon the delegation’s return to Moscow in April, the agreement would "put our electrical industry on the same level as West European and American technique." He was particularly excited by the ramifications the new contract would have upon Soviet efforts to tie its electrical industry more closely to its machine-tool industry.\textsuperscript{12}

As the Soviets themselves admitted, the two agreements with IGE did "not come close to satisfying all our needs" as far as the plan for the electrical industry was concerned.\textsuperscript{13} Indeed, the same Glavelektro delegation that negotiated the second contract with IGE spent part of its time in the United States buying turbines from IGE’s competitors, so great was their need, and concluding
another technical-assistance agreement with the construction engineering firm of Dwight P. Robinson, which agreed to assist the Soviet Union in speeding up the construction of several of its hydroelectric stations.\textsuperscript{14} By July, Glavelektro also had opened negotiations with Westinghouse, hoping to gain access to that company’s expertise in the generation, control, and utilization of low-voltage electrical current, something specifically mentioned in the second IGE contract as falling outside the boundaries of the agreement.\textsuperscript{15} Nevertheless, the technical-assistance agreements with IGE, with their far-reaching and long-term provisions, certainly played the greatest role in whatever achievements the Soviets made in their efforts to "Americanize" their electrical industry.\textsuperscript{16}

No doubt Soviet authorities recognized the economic importance of the IGE agreements, but for them the political significance was even greater. Soviet political and economic newspapers gave top billing to the "repercussions" that the October 1928 agreement would have for Soviet-American trade and diplomatic relations. Persuading so massive a corporation as General Electric to deal on a long-term basis with the Soviet government was an accomplishment by itself, the Soviet press argued. But it was even more telling that GE was headed up by no less a figure than Owen D. Young and was "directly connected with Morgan ‘himself’."\textsuperscript{17} Soviet officials were mesmerized by their own propaganda concerning the influence of "Wall Street" on U.S. governmental policy. It thus seems to have
been more than wishful thinking when the editors of Ekonomicheskaja zhizn' asserted that "IGE has recognized the Soviet government; and, after all, the State Department often follows the lead of Owen Young." ¹⁸

The key political factor in the technical-assistance agreement was IGE’s extension of long-term credits to Glavelektro. Official U.S. policy, constantly reiterated by the State Department, was that Washington had no objections to trade with the USSR as long as it did not involve the flotation of bonds on the American market or the extension of long-term banking credits. As we have seen, this policy prevented the vast majority of interested American businesses from dealing with Soviet agencies on anything other than a short-term credit basis; moreover, as far as the Soviet government was concerned, the State Department’s disavowal of an anti-Soviet trading policy was meaningless and cynical because the effect of its policy effectively meant the exclusion of Soviet trading agencies from the American capital markets.¹⁹ What Soviet officials rather conveniently chose to overlook, in their public comments at least, was that IGE was such a huge corporation that, unlike most U.S. firms, it could finance long-term credits from its own financial resources, without recourse to the banks or bond markets.

For its part, IGE was not about to undertake any initiative vis-à-vis the Soviets that might contravene U.S. policy. No sooner had the company begun negotiations with Amtorg officials in the spring of 1927 than it approached
U.S. government officials, seeking assurances that its intentions to offer long-term credits with its own financial resources would meet with Washington's approval. The vice-president of IGE, M. A. Oudin, first spoke with Secretary of Commerce Herbert Hoover, who said that the foreign-investment aspects of the deal were beyond the purview of his agency, but that because the deal involved "in effect the extension of a loan to a régime which had repudiated its obligations to the United States," IGE might wish to discuss the matter with the Department of State. Oudin did so. He met with Robert F. Kelley, chief of the State Department's Office of Eastern European Affairs and one of the strongest opponents of U.S. recognition of the Soviet government. Kelley in effect approved the deal by indicating that the department would not express an opinion: it did not "encourage or discourage business relations with the Soviets," and did not object to nor place restrictions on transactions with Soviet agencies. Since IGE would be financing its credits through its own resources, the proposed agreement would not contravene the department's prohibition of Soviet bond flotation on the U.S. market. On the contrary, in some respects it would represent "a recognition by the Bolsheviks of the necessity of meeting one of the conditions laid down by this Government, namely, the granting of effective compensation to American nationals for property confiscated by the Soviet régime." Kelley was referring to a proviso that IGE and Amtorg were
planning to write into the technical-assistance agreement confirming that IGE's claims of roughly $1,750,000 against the Soviet government, rising out of the nationalization of IGE property shortly after the Revolution of 1917, would be considered settled. Moreover, when the deal was finally announced, Clark Minor, the president of IGE, made it clear that his company had been in constant contact with the State Department and had been given assurances that nothing in the agreement violated U.S. policy. 22

The Soviets did not ignore Minor's statement, but they did try to wrap it in their own interpretation. After publishing a translation of a State Department statement on the IGE-Amtorg contract that reiterated Washington's long-standing policy on prohibiting bank loans to Moscow, both the government paper Izvestiia and the party organ Pravda still felt able to proclaim that "the U.S.S.R. has broken the American credit blockade." 23 Pravda cast doubt upon the State Department's declaration that it approved of the deal, informing its readers that the department was "tied to the apron strings of Owen Young." It optimistically forecast an improving climate in Soviet-American relations, arguing that the IGE-Amtorg deal bolstered "the stock of arguments in favor of recognition of the U.S.S.R." and made it more likely that "big business men" would no longer tolerate "small shopkeeper talk" that trade with the USSR was possible without diplomatic relations. In keeping with Moscow's desire to portray self-confidence, however, the party organ then went on to remark that the contract made
recognition "an act of relatively small importance. If Mr. Young and one of the most important financial groups in the world have confidence in the Soviet government, why should other American industries and banks not follow their example?"24

Although we cannot prove that the IGE-Amtorg deal broke the ice and led to other technical-assistance agreements between U.S. firms and Soviet agencies, American business did take note of the agreement, and the Soviet press was only too happy to point this out.25 Matthew Woll, the chief labor representative on the Executive Board of the National Civic Federation (NCF), was so upset by the "propaganda which is being circulated by the Reds" over the IGE-Amtorg agreement that he prevailed upon the chairman of the NCF’s Executive Council, Ralph M. Easley, to solicit from Owen Young some sort of statement in support of Washington’s policy of recognition. Young did reply, but he avoided an opinion on political relations, preferring instead to point out that the agreement was "a purely business transaction" designed to "discharge our obligation to the men and women who are putting their capital and their labor" into the General Electric Company.26 Within six months Americans had become so accustomed to major deals between U.S. firms and Soviet trusts that when IGE signed its second, more far-reaching agreement with a Glavelektro, it got almost no attention in the American press.27
General Electric thus became the first well-known American corporation to conclude a large-scale technical assistance agreement with the Soviet government, but other American firms already had trod this ground quietly, enjoying a good deal of success in the process. The Freyn Engineering Company of Chicago had enjoyed close relations with Moscow since May 1927, when Vesenkha retained the firm as a general consulting adviser for modernizing all Soviet metallurgical factories, as well as for planning any others that might be launched during the next six years. This was only the second time that Moscow turned to an American firm for technical advice in the construction of a factory, the first experience having been unsatisfactory for both sides. Published Soviet sources do not explain the government’s decision to engage Freyn, but archival sources reveal that the main motivation for seeking foreign assistance was the growing realization among Soviet planners in early 1927—well before the more ambitious Five-Year Plan was approved—that their plans for a colossal expansion of the iron, coal, and steel industries were in danger of never getting off the drawing board.

By early 1927, Gosplan already had approved the outlines of a five-year plan calling for the expenditure of over five hundred million rubles (roughly $350 million) to modernize the Soviet metallurgical industry. The plan earmarked more than one-fifth of this sum to begin construction of a massive, fully integrated metallurgical kombinat at Magnitogorsk. Other new metallurgical plants
in the Kuznetsk basin of Siberia and in the Krivorozhskii region of the Ukraine represented investments of some $50,000,000 each. Scores of other, older plants were scheduled for modernization or complete retooling.\textsuperscript{30}

Already in 1926, Gosplan had warned that financing such ambitious plans would "bring hard times upon the budget."\textsuperscript{31} This warning proved to be an understatement. By mid-1927 the incompetent drafting and arbitrary redrafting of blueprints by Gipromez, the agency primarily responsible for planning in the metallurgical sector, had thrown future production schedules off target and was threatening to boost the overall cost of the program to intolerable heights. The entire planning process had fallen apart. Gipromez was unable to discipline itself to decide upon technical specifications and then stick to them. Vesenkha made matters worse by often ordering revisions in the plans after they had already been put into execution. To complete the picture of chaos, managers of plants in various stages of construction or retooling frequently altered the plans they had received from Moscow—a seemingly minor, localized action that, in a system of centralized planning, could start a chain reaction of disruptions throughout the country. The situation, as the Commissariat of Inspection (Rabkrin) delicately put it in late April 1927, was "extraordinarily abnormal."\textsuperscript{32} Indeed, planning had become so chaotic that the two complexes designed to form the heart of the new metallurgical industry, the Magnitogorsk and Tel’bessk factories, were
seriously delayed: blueprints for the former now would not be ready until May 1928; work on blueprints for the latter had not yet even begun.33

Into this parlous environment stepped the Freyn Engineering Company, on 23 May 1927, when its president and the vice-president of Vesenkha signed the largest consulting engineering contract ever negotiated, after only eleven weeks of talks. Neither the contract itself nor the timing could have been accidental: metallurgy was one of those critical sectors upon which the larger fate of industrialization depended, and it was on the verge of complete disarray. To forestall disaster, Vesenkha in effect made Freyn the chief consultant for the entire Soviet metallurgical industry. The Chicago company agreed to review on a continuing basis general plans for development of the metallurgical sector and to participate actively in drawing up concrete projections for those plans. In addition, it would furnish Gipromez with detailed drawings and blueprints for new and refurbished metallurgical complexes and supervise construction and installation. Freyn began work immediately, concentrating first on drawing up a comprehensive set of schedules and blueprints for the Tel’besskii plant in the Kuznetsk Basin, the richest source of iron ore in Siberia and an area targeted for intensive development of heavy, defense-related industry.34

We should not be surprised to discover that the American firm could not provide a miracle cure for the
problems besetting the Soviet metallurgical industry. Freyn was, after all, a foreign concern, and it had no control over the Soviet agencies that had to approve and implement its suggestions, but which more often than not had revised priorities in the interval and then returned the projects for reworking. It also would be simplistic to blame Gipromez or Vesenkha for the policy flip-flops and resulting delays, for throughout this period a struggle for political power was being waged at the highest levels of the Soviet government, and the major battles in this political conflict were fought on the field of economic policy.\(^{35}\) Still, on 29 June 1928, Freyn managed to present Gipromez with a comprehensive program for the construction and equipping of the Tel’besskii plant, down to the most minute details of factory layout and machinery specifications. Gipromez’s Technical Council was delighted with Freyn’s work, not least because the president of the Chicago firm himself appeared in Leningrad to explain the details and, with a group of his own draftsmen, to make any final changes that the Soviets might require.\(^ {36}\)

Freyn stayed on in the Soviet Union throughout July, going to Moscow to review his firm’s contract with Valerii I. Mezhlauk, deputy chairman of Vesenkha. The Soviets were pleased with the American firm’s work, but by mid-1928 it was becoming clear that the emerging Five-Year Plan would have production targets far higher than anyone had imagined even a year earlier. It was thus imperative that they find a way to speed up the time-consuming process of consulting
with a transoceanic adviser. The result was a new agreement between Freyn and Vesenkha that called for the creation within Gipromez of a special metallurgical section, independent of the existing one, staffed by twelve of "the most prominent engineers" of the Freyn Engineering Company. At a stroke the agreement eliminated the delays caused by sending specifications and blueprints back and forth across the Atlantic, a journey that often had to be completed more than once thanks to "the specific conditions prevailing in the Soviet Union"; that is, the arbitrary revision of plans and targets either by Vesenkha or by directors in the field. Perhaps just as important for the Soviets, Freyn agreed to give Gipromez access to its archives of standard blueprints and projects. In theory, at least, this would simplify the Soviet agency's tasks in planning the innumerable factories that would have to be built or reconstructed in order to supply the great metallurgical kombinaty or utilize their output efficiently.⁷

In theory. In fact, the increasingly chaotic rush to force the pace of work, to raise production targets, and the consequent jettisoning of anything even remotely resembling true centralized planning led merely to delays and bottlenecks of a different character. It was as if a yawning gap had opened between Soviet planners in the center and industrialists in the field that was just as wide, just as unbridgeable, as the distance between Chicago and Moscow. In January 1929 Vesenkha, on the basis of
projects received from Freyn's engineers in both America and Leningrad, approved a wide-ranging directive establishing construction syndicates for the Magnitogorsk and Kuznetsk (formerly Tel'besk) conglomerates, assigned fourteen million rubles for their first year of operations, and distributed another twelve million rubles to a variety of other trusts for construction and retooling work in other metallurgical factories. All trusts mentioned in the directive were ordered to submit their final blueprints, plus estimates of costs, "in the shortest possible time." 38 Within two months, however, Mezhlauk was in Chicago signing a new, $1 million agreement with Freyn that increased the American firm's supervisory role over the Soviet metallurgical industry and gave it an interventionist capability at eighteen sites where new plants were being built and forty factories being rebuilt or reequipped. Freyn was to send another complement of fifteen engineers to its special bureau in Gipromez's Leningrad headquarters. 39

The problems that forced this recourse to an American savior are too numerous to permit any detailed discussion; besides, neither Soviet nor American sources explicitly identify Vesenkha's motives for turning yet again to their American consultants. From the proceedings of an extraordinary session in early April 1929 of the All-Ukrainian Committee of Metal-Workers, however, we get a pretty good idea of what those motives were. The session chronicled a five-month saga of fruitless efforts to
maintain construction schedules, strengthen labor discipline, and raise productivity in the Ukrainian branch of the metallurgical industry. Singled out for especially harsh criticism, however, was the improper installation in several plants of American-built blast furnaces, which was not merely a threat to future productivity but also a waste of precious foreign currency. The participants in this gathering roundly criticized themselves for their "unsatisfactory organization of the production process," but *Ekonomicheskaia zhizn’* dismissed this as merely a "cognitive breakthrough." In this respect the Ukraine was not unique. No wonder Vesenkha turned to Freyn for help.40

Aside from providing accurate blueprints and sensible advice, however, neither this nor any other American firm could overcome the barriers that constantly sidetracked Soviet plans. The central government’s blind insistence on raising targets to unrealistic heights and demanding compliance at any price created turmoil in virtually every sector of the economy, the most visible signs of which were massive disruptions in the supply of raw materials and semi- and fully-finished goods, chronic labor shortages as steadily impoverished workers roamed the country in search of better conditions, and a growing resort on the part of the state to terror as a means of enforcing discipline and finding scapegoats. Unbelievably, one of the first groups to feel the brunt of the state’s wrath were engineers and "technical specialists," the very group which the state was so desperate to create.41 In such an environment no amount
of American technical assistance would suffice to solve production bottlenecks; if anything it could merely alleviate them and perhaps prevent even greater setbacks.

Soviet officials evidently believed that this was better than nothing, for despite an alarming drop in production at existing plants and continued delays in the construction of new ones, they continued to turn to Freyn and other American engineering firms for help in putting Soviet metallurgy on its feet. In the Ukrainian coal and iron-ore fields, for example, the failure to lift output threatened to sabotage planned increases in production in the region's existing mills. In response, Donugol', the State Coal Trust for the Donbas, sent a delegation of engineers to America in August in order to familiarize themselves with the U.S. Bureau of Mines' laboratories. In October the delegation signed a two-year technical-assistance agreement with Stuart, James & Cooke, Inc., aimed at rationalizing Donugol’s entire productive and administrative apparatus. The state trust responsible for the mining and milling of non-ferrous metals opened negotiations with the General Development Corporation of New York at roughly the same time, hoping to secure the same sort of assistance. Apparently, the New York company was unwilling to share its designs and patents with the Soviet trust, so the trust opened negotiations with other, more obliging firms. The result was a series of technical-assistance agreements in May 1930 with the Archer Wheeler and Southwestern Engineering corporations.
at Magnitogorsk, which was supposed to become the linchpin of a brand-new metallurgical industry in the Urals, construction had fallen so far behind schedule by March 1930 that Vesenkhà hired the Arthur McKee Company of Cleveland to take command from the "self-seeking, slipshod" Soviet directors. McKee was to be solely responsible for buying and installing all of the equipment for two of the complex’s blast furnaces by 1 October 1931, and for the remaining nine by October 1932. Thirty of McKee’s engineers were to embark immediately for the Soviet Union, and when installation reached its critical phase it promised to have 250 engineers and specialists working at Magnitostroi. In June 1930, the Freyn company of Chicago got a similar contract, this one for a steel mill in the Kuzbas.

The mill, which Freyn would help to design, erect, and equip, was to produce several high-quality alloys that were necessary for the construction of sophisticated machine tools. Indeed, almost all of the agreements designed to attract American assistance to the Soviet metallurgical industry had implications for the machine-tool industry: the ability to forge high-quality specialty steels was a prerequisite for independence from foreign machine-tool manufacturers. Components of the gigantic new Magnitogorskii and Kuznetskii complexes, as well as several of the new and reconstructed mills in the Donbas, were to be devoted to the production of specialized alloy steels. Just as important, technical-assistance agreements in such
sectors of the economy as electrification, transportation, and agricultural machinery also had ramifications for the Soviet machine-tool industry: quite often agreements had provisions for the transfer of designs and patents, plus swaps of workers and engineers, so Americans could teach Soviets not simply how to run complex machinery but also how to build replacements.

A well-developed machine-tool industry was in some ways the most vital goal of the Five-Year Plan: without it, all other technical-assistance agreements would have been mere one-off technology transfers, and as machinery wore out the Soviets would have had to turn once again to foreign suppliers and experts. It should not come as a great surprise, then, that virtually all major technical-assistance agreements in some way affected the Soviet machine-tool industry. Moscow wanted help designing and building dams and all the complicated machinery that produced, channeled, and utilized electricity; foundries, blast furnaces, and rolling mills; and tractors, automobiles, and rolling stock. And all of these required the creation of a machine-tool industry that could pick up where technical assistance left off.

In the years before the Soviet government formally approved the First Five-Year Plan it seems that Soviet trusts in the machine-tool sector devoted themselves mainly to modernizing existing plants with purchases of foreign equipment. Although essential to a quick, albeit partial, restoration of Soviet industry, this approach did
very little to create a domestic machine-tool industry. The inability of central planners to supervise, let alone coordinate, the purchases of dozens of trusts and hundreds of enterprises meant the waste of hundreds of thousands of gold rubles on duplicate, outmoded, and at times second-hand machinery.\textsuperscript{50} Purchasing foreign machinery, especially when it was the most up-to-date equipment available, was not the same as putting it to productive use: throughout 1928 and early 1929 newspapers of the economic commissariats complained about the misuse or non-use of expensive machinery, and a tendency of trusts and factories to buy sophisticated foreign machinery of no use to their own production processes simply because it was foreign.\textsuperscript{51} Only one comprehensive attempt at winning technical assistance for the machine-tool industry had been made prior to the launching of the Five-Year Plan, that between the British firm Metropolitan Vickers and the Leningrad Machine-Building Trust (Lenmashstroi) in early 1927, but in mid-1929 the Council of Labor and Defense took Lenmashstroi to task for having essentially ignored the agreement.\textsuperscript{52}

Moscow’s central planning agencies finally took concrete measures to rectify the machine-tool industry’s shortcomings in January 1929, at the same time they were putting the final touches on the First Five-Year Plan. The main agency responsible for the machine-tool industry, Glavmashstroi, foresaw a trebling of the Soviet Union’s productive capacity in machine tools during the five-year period, representing an investment of some three and one-
half billion rubles. It was an immensely ambitious program designed to end the USSR's dependence on Western countries for over 60 percent of its machine tools, and it affected virtually every sector of the economy. Carrying it out in an organized manner promised to be difficult at best. So concluded the Presidium of Gosplan, which convened in special session the first week of January in an effort to iron out the practical details of this plan and to ensure its rational implementation. Aside from recommending the centralization of foreign machine-tool purchases to eliminate waste and duplication, the planning agency proposed establishing a network of training institutes (tekhnikums) to produce cadres of "technically literate" workers and specialists who might form the basis of a self-sustaining "technical leadership." These institutes should then be linked, at the central, provincial, and enterprise levels, with a network of consultative bureaus staffed with foreign specialists.\textsuperscript{53}

In line with this plan Glavmashstroi began preparing the general blueprints for thirty-two machine-building projects and arranged to have them sent to America for "expert opinion." Several projects involved the critically important tractor factories and shops at Stalingrad, Rostov, and the "Krasnyi Putilovets" factory in Leningrad, but virtually the whole of Soviet heavy industry was represented in this batch of projects, including the heavy machine-building factories at Sverdlovsk, Kramatorsk, and Podol'sk.\textsuperscript{54} The American engineering, construction, and
manufacturing firms that examined these projects usually did so as part of a broader technical-assistance agreement, making it difficult to isolate contracts pertaining specifically to the machine-tool industry. The Albert Kahn construction engineering firm of Detroit, for example, reviewed plans for the placement and installation of machinery at the Stalingrad Tractor Factory as part of an earlier agreement to supervise the design and layout of the plant’s physical facilities. Other U.S. companies played a role at Stalingrad, too: engineers at the International Harvester Company examined designs for the plant’s machine-tool shops, and over one hundred American manufacturers provided 90 percent of the machinery installed in the plant, worth over $10 million. When Glavmashstroi received approval to build another large tractor factory at Cheliabinsk in November 1929, it decided to send its preliminary designs to a variety of American engineering and manufacturing firms with which it already was doing business, and for good measure sent along a delegation of 165 Soviet engineers to observe how designing and engineering in this critical sector of the manufacturing economy was conducted there.

To a casual observer, the Soviet determination to create a domestic tractor industry might seem to have been far less critical to the overall success of the Five-Year Plan than was the need to develop electrical and metallurgical industries. Yet it was in tractor production that the Soviet government invested perhaps its greatest
political hopes. Aside from its obvious need to ensure the country with adequate food supplies, the government needed to find some way to build a political base in the vast, peasant-dominated countryside, to bind its overwhelmingly agrarian populace to the Soviet political and economic order. The Bolshevik party had come to power in part on a tidal wave of peasant disturbances, an elemental movement in which the peasantry swept away virtually every aspect of the old, gentry-dominated agrarian order that had for centuries underpinned tsarist rule in the Russian Empire. No Bolshevik was naive enough to take for granted the peasantry’s acquiescence in a state-controlled, socialist order: what had happened to the autocracy could easily happen to the dictatorship of the proletariat. To the party, the Russian peasant was by his very nature conservative and petty-bourgeois in outlook, clinging to his small parcel of land, jealous of his personal control over his agricultural activities, and hostile to notions of change. Ever since its triumph in the Russian Civil War the party had sought to reassure the peasants as well as itself by constantly hailing the smychka (alliance) between the proletariat and the "toiling peasants" as the basis of Soviet power, even as it sought desperately to give the alliance a basis in reality. Collectivization of agriculture and the expropriation (and often physical extermination) of the most successful and industrious peasants became the eventual solution to the government’s dilemma, but before Moscow struck out on this bloody and
disastrous course it tried another tack: tractorization of the countryside, which would bring the peasant into the era of modern agriculture, raise agricultural productivity, and demonstrate to the conservative, tradition-bound peasant the superiority of an industrialized, socialized agriculture.\textsuperscript{57}

As early as 1923 the Soviet government began efforts to introduce tractors to the countryside on a large scale, turning to the company that before the revolution had supplied over 80 percent of Russia's agricultural machinery, the International Harvester Company. With its acute need to raise agricultural production in the wake of the Civil War, Moscow went along with what it felt were unreasonable credit arrangements, by which it had to pay one half of the price upon delivery and then retire the remaining debt, at 6 percent interest, with four quarterly payments. By early 1926 such terms were no longer acceptable to Soviet trading organizations, which therefore began to seek other, more generous partners. At roughly the same time, however, the domestic agenda in the Soviet Union was changing, and the emphasis began to shift from buying tractors to a more concerted effort to develop a domestic tractor industry.\textsuperscript{58}

One of the prime movers in the Soviet effort to develop this industry was Feliks E. Dzerzhinskii, the founder of the Soviet secret police and, since February 1924 the chairman of Vesenkha. Dzerzhinskii was at the heart of the party's debates over the tempo of industrialization in the
mid-1920s, and although he was the man responsible for overseeing Soviet industry as it clawed its way back from the destruction of the Civil War, his tenacious fight to devote ever greater resources to the development of heavy industry seems to have been a reflection of beliefs deeply rooted in more than administrative convenience. Dzerzhinskii’s conviction that Soviet industry had to overcome its backwardness and technical dependence upon the West was an important motive in his agitation for creating a Soviet tractor industry. In June 1924, well before the question became a general one, Dzerzhinskii urged the party Politburo to permit the Council on Labor and Defense (STO) to consider expanding the USSR’s tractor producing facilities, and by the end of that year he was mulling over the need to involve foreigners in the job. His persistence paid off in March 1926, when Glavmetall approved the project and ordered plans and blueprints for a tractor factory to be built in Stalingrad. Groundbreaking took place on 12 June 1926.59

Nothing else happened at Stalingrad for quite some time because of the usual sort of Soviet inefficiencies and because of the party’s rapidly shifting policy on agriculture. As Stalin solidified his position at the helm of the Communist party and drifted, along with his supporters, toward an increasingly ambitious industrial-development policy, it was becoming clear independent of political developments that the country’s needs for tractors and other agricultural machinery would go far
beyond the ability of the Stalingrad plant to satisfy. Initial plans called for an annual output of ten thousand tractors at Stalingrad, but as early as March 1927, when designs for the plant had still not been finalized, Glavmetall was hedging its bets and preparing itself for an expansion of the facility. On 1 April 1927 the STO "definitively" selected Stalingrad as the site of the new factory (itself a testament to the confusion besetting Soviet planning, since this had been "decided" in March 1926), fixed its annual productive capacity at ten thousand tractors, created the agency "Traktorostroi" to head up construction at the site, and appointed a high-powered committee headed by Sergo Ordzhonikidze, a close friend and ally of Stalin, to decide the type of tractor to be produced. It also took steps to increase tractor production at other factories. Finally, the council instructed Vesenkha to "begin negotiations with the most prominent foreign firms over receiving from them technical assistance in the projecting, construction, and starting-up of the factory." Within two months, Vesenkha announced that it had signed a contract with the Freyn Engineering Company, the essence of which was that the American firm would provide designs for all buildings of the factory at Stalingrad.

The information that Freyn received from Traktorostroi was so ambiguous, evidently, that the company ended up submitting four separate projects with projected ruble costs ranging from 750,000 to six million. The lower
figure represented the government budget’s appropriation for the 1927-1928 fiscal year, but Freyn had contracted and been in communication with Vesenkha, which in late 1927 was demanding a much larger sum for Stalingrad, with a corresponding increase in its planned output. Traktorstroi had initially decided to build a tractor based on an International Harvester model, with fifteen to thirty horsepower, and Gipromez was planning to review designs based on this model and give its final go-ahead in March 1928. But in late 1927 a delegation of officials from Traktorstroi traveled to America to inspect thirty-five different tractor factories, and it returned to the USSR in January 1928 debating the various virtues of tractors produced by the McCormick, Ford, and John Deere companies. With no firm decision on which type of tractor the Stalingrad factory would produce, the Traktorstroi representatives signed several agreements with American firms for equipment and designs of a whole host of the factory’s shops.63

These agreements were premature, to say the least. In late April 1928 the Commissariat of Domestic and Foreign Trade (Narkomtorg) submitted a draft decree to the STO outlining measures that would enable the USSR to obtain fifteen thousand tractors, from domestic and foreign sources, in the fiscal year 1928-29.64 Attached to this draft was the comment of Deputy Commissar of Rabkrin Iakovlev, who simply wrote: "Not enough. Must double this at the very least to supply all the newly established
collective and state farms."\textsuperscript{65} Sure enough, in late May 1928, the STO convened a special meeting at the behest of Vesenkha to discuss country's tractor requirements. Lazar Kaganovich, another close political ally of Stalin and head of a special commission on tractor production of the party's Central Control Commission, blasted Narkomtorg's projections as "incompatible with the actual needs," which he estimated at 21,000 for the 1928-29 fiscal year and at least 120,000 for the entire five-year plan period.\textsuperscript{66} In late June the STO approved increasing the annual output at Stalingrad to twenty thousand and authorized the chairman of Amtorg to open discussions with the Ford Motor Company over involving that firm in constructing and equipping the Stalingrad factory.\textsuperscript{67} Ford declined this offer, although as we shall see discussions continued on the company's participation in building an automobile factory in the USSR.\textsuperscript{68} As a result, the STO was forced to parcel out bits and pieces of the planning and equipping work to a variety of American firms, a step it decided upon in mid-July.\textsuperscript{69}

Within a year these revised plans were obsolete, and the STO was forced back to the drawing board. The reasons for this are complex and beyond the scope of this study, but they basically stemmed from a growing "grain crisis" in late 1928 and early 1929, brought on by low state-procurement prices for grain, which prompted the peasants to withhold their grain from the market. The government responded with violence, expropriating grain, reviving the peasantry's worst memories of the state's confiscatory
Civil War policies and leading them to resist the state's policies either actively, through violence, or passively, by cutting down on sowing for the next year. This in turn provoked a crisis mentality among the top political leadership, which by mid-1929 began its first steps down the road to collectivization, a "war against the village" that ended some three years later in the almost total collectivization of Soviet agriculture, a catastrophic decline in agricultural output, and the extermination or internal deportation of millions of the most efficient and productive peasants in the Soviet countryside.  

With agriculture in turmoil and collectivization on the agenda, it was clear that the government's projected output of tractors and other agricultural implements was grossly inadequate. In late May 1929 the STO convened a special conference of officials from a variety of industrial and agricultural agencies, all of whom "insisted" on the immediate necessity of expanding the Stalingrad factory's productive capability. Gosplan's representative informed the meeting that output could be increased three or four times even as construction of the factory continued. In the end the STO went along, directing Traktorostroi to revise its program so that the factory could produce forty thousand tractors per year, and it settled on using International Harvester designs for a tractor of fifteen to thirty horsepower. The STO directed Vesenkha to provide Traktorostroi with the financial and material wherewithal to begin production by March 1931, and to ensure that the
plant could reach its full productive capacity by October 1933. The cost of this revision was not insignificant: for the remainder of the 1928–29 fiscal year Traktorostroi would absorb 18.6 million rubles, and total costs, including housing and other services for the factory's workforce, were projected at 76.5 million.71

The pace of activity quickened in the wake of the meeting. On 2 July Amtorg announced contracts with International Harvester and John Deere for the purchase of 6,750 tractors. The agreement with Harvester further provided for the exchange of engineering personnel, with the American firm to send consulting engineers to oversee the construction of tractor repair shops.72 Three days later two American engineers, apparently from the Albert Kahn engineering firm, arrived at Stalingrad with blueprints for three of the factory’s main shops. They were appointed chief director and deputy director of all construction operations at the site.73 On 12 July, Glavmashstroi petitioned the STO for permission, and for the funds, to speed up construction at Stalingrad, and the STO agreed on the 20th, changing the date of completion from March 1931 to December 1930 and recommending a supplemental expenditure of 3 million rubles to finance the expansion.74 The Albert Kahn company "broke all records in preparing plans" for the expanded factory, working so quickly that in early August a special correspondent for Pravda complained that Amtorg had delayed construction by waiting until the last week in July to order structural
steel for the frames of the main buildings.  

Traktorostroi actually managed to bring the factory on line in late spring 1930, although in a manner replicated by almost every other significant industrial complex of the Five-Year Plan period: production was erratic, of extraordinarily low quality and high cost, and took years to bring into line with official hopes and projections. The factory directors had sought to avoid such problems by hiring over three hundred American engineers and technicians to oversee start-up and initial production, but it could not force its own, Soviet engineers and workers to use the foreigners' skills in a timely or logical fashion. Still, the American factor in Soviet tractorization was crucial to whatever measure of success the government enjoyed. At virtually every step of the process, from initial projections through initial production, American firms, engineers, and the technological and technical skills they represented were heavily involved. Imagining a Soviet tractor industry without American assistance would be an exercise in fantasy.

Much the same can be said about the Soviet automobile industry, which for all intents and purposes was created by the wholesale transfer of American automotive technology and production methods to the USSR and then staffing the resultant industry with Soviet personnel. The decision to develop a domestic automotive industry in the Soviet Union, much like the debates over the larger First Five-Year Plan,
grew out of the ideologically charged debates over economic development policy that sundered the Communist party in the late 1920s. Initial drafts of the five-year plan, drawn up by Gosplan in 1926-1927, made no provision for substantially augmenting the country's tiny automotive capacity. Instead, existing facilities would be upgraded slightly to increase their combined capacity to ten thousand vehicles during the entire quinquennium, and a modest number of imports would supplement domestic production.

These projections brought a variety of complaints, but none as strenuous as N. Osinskii's. Head of the Central Statistical Administration in mid-1927, Osinskii was an old leftist who had opposed the New Economic Policy and was now advocating a much more concerted industrialization effort. In a series of articles he decried the "catastrophically backward" state of Soviet automotive transport, ridiculed Gosplan's targets as "mere handicraft," and demanded the construction of an automobile plant capable of producing at least one hundred thousand vehicles annually. When critics claimed that existing roadways, repair facilities, and mechanical expertise could not support such a large volume of production, Osinskii countered by pointing to developments in the United States, where the technical infrastructure had expanded along with production. He also reminded his critics of the military implications of the automotive revolution. An underdeveloped automobile industry could not meet the needs
of Soviet military doctrine, he said, which envisioned massive mechanized and motorized armies. Nor could sufficient vehicles be imported in the face of an economic blockade. Should the Red Army have to use "the Russian peasant cart against the American or European automobile," Osinskii warned, it would be "threatened with the heaviest losses, not to say defeats."82

Osinskii's dissatisfaction with the modest plan for the Soviet automobile industry reflected deeper disagreements in high party circles over strategies of industrial development, differences that also penetrated the state's economic planning and administrative agencies. In 1927, S. G. Strumilin, S. D. Shein, I. A. Kalinnikov, and others on the right wing of the party tended to dominate Gosplan's subordinate committees and bureaus. They opposed overly optimistic industrial plans, and their opposition squared with decisions that had been reached at the recent Fifteenth Party Congress.83 In other agencies, however, a more aggressive industrialization drive drew support from key officials, including Valerian V. Kuibyshev, who had assumed the chairmanship of Vesennkha on 5 August 1926. A protégé of Stalin, Kuibyshev promptly set his staff to work on a more ambitious plan than the one Gosplan envisioned, and even this plan seemed inadequate by mid-1928, when the Soviet Union's economic difficulties pushed Stalin and his allies toward a more intensive industrialization policy. As a result of this shift to the left, mobilization finally assumed its place among the priorities of economic
As early as 1926, Amtorg officials made desultory inquiries among several American automobile manufacturers to sound out their interest in building a plant on Soviet territory. There was none, since the American manufacturers doubted Moscow's ability to guarantee long-term, profitable operations, and there the matter rested for well over a year. By early 1928, however, Soviet economic policymakers had shifted their sights toward an agreement under which a U.S. firm would provide technical assistance in constructing a plant to be operated by the Soviet government, which over the course of several years would compensate the American firm for its investment and eventually purchase the plant outright. With this goal in mind, Amtorg officials approached several American automotive companies throughout the summer and fall of 1928 with a project for building a Soviet factory capable of producing between 12,000 and 50,000 vehicles annually. Only General Motors and Ford expressed much interest, although GM refused to invest any of its own funds in the plant and would grant nominal credits for only two years.

The Ford Motor Company, meanwhile, initially refused to grant any credit at all, but company officials were greatly intrigued by the proposal and quickly countered with one of their own. Specifically, Amtorg's delegation, headed by Deputy Chairman Gurevich, traveled to Michigan on 7 September and proposed to build an automobile factory that would make Ford models from parts and machinery purchased
from the Ford Motor Company. Gurevich spoke of a plant that could produce from 12,000 to 25,000 vehicles per year on a single shift---double those numbers if it operated on two shifts. Ford would provide the technical assistance and the necessary designs and licenses, and as the plant was being built would provide disassembled Ford cars and trucks for assembly in the USSR in a reconditioned factory. The Soviets gave no indication of their projections for the costs of the factory or of the agreement with Ford.88

The cost made little difference to Ford officials, who immediately rejected the Soviet proposal because "such a plant was entirely too small to interest our company." Ford's chief of production, Charles E. Sorensen, proposed instead that the American company would build a plant in the Soviet Union with an annual capacity of 150,000 vehicles. Over a four-year period parts for 186,000 cars would be shipped to the USSR for assembly, the total cost being $90 million, to be paid in full, in cash, upon delivery at a U.S. port. Of the $90 million, Ford would invest $24 million in the automobile factory. This proposal was a far cry from what the Soviets had envisioned, but they did not reject it outright; instead, Gurevich asked for time to consult with his government and promised to contact Ford as soon as he had an answer.89

Two weeks later, Gurevich and his superior, Saul Bron, responded with a proposal that indicated the Soviet government's keen interest in Ford's scheme. The counterproposal offered several devices that would allow
Moscow to overcome what it considered the biggest obstacle to agreement: the $90 million price tag. Amtorg's preferred option was to reduce the annual productive capacity of the plant to 100,000, which in its mind should lead to a corresponding drop in total costs payable to Ford. If the American firm rejected this approach and insisted on the $90 million price, then perhaps it would be willing to spread out payments over a ten-year period rather than four. Finally, if Ford still insisted on building a plant for 150,000 vehicles and on the original price, then Amtorg wished to discuss a complicated scheme whereby the Soviets would endeavor to substitute for American-manufactured automobile parts as many Soviet-produced components as possible. They proposed a similar scheme for the factory itself.  

By the end of September both parties to the discussion were genuinely interested in the possible deal. While Amtorg was awaiting word from Moscow on Ford’s response to its proposal of 21 September, the American company engaged J. H. Rand of the Remington Rand Company of New York to investigate the nature of deals that other large U.S. companies had concluded with Amtorg. Rand reported in late October that Ford’s best possible arrangement would be to require 25 percent of the price of its components to be paid in cash upon delivery at port, and to grant Amtorg another year to pay the balance, in several installments, at 9 percent interest. The contract eventually signed carried provisions corresponding almost exactly to this
recommendation. In Moscow, meanwhile, Vesenkha decided that Ford’s offer was serious enough to merit further negotiations, and that body dispatched Osinskii to America to pursue them. On the eve of his departure in mid-November for America from Geneva, where he was leading the Soviet delegation to the Geneva Economic Convenence, Osinskii spoke of his intention to visit all four U.S. automobile manufacturers with whom Amtorg officials had spoken in the summer, and he now put the factory’s capacity at one hundred thousand.92 Rumors in New York had it that only GM and Ford were still in the running.93

In fact, it appears that the only company with which Osinskii planned to have serious discussions was Ford, for soon afterward Vesenkha sent its deputy chairman, Valerii I. Mezhlauk, directly to Detroit in order to work out the final arrangements of the impending agreement. Mezhlauk accepted the basic thrust of Ford’s proposal, but he reduced the number of disassembled vehicles that would be shipped to the USSR for assembly to 72,000—cutting the original number by half. Regarding the cost, he wanted Ford to sell the parts at the same price the company gave to its largest dealers, plus any expenses incurred in delivering the parts to an Atlantic port. Mezhlauk specified the Model "A" as the type of car to be purchased, and as the model upon which the automobile factory would be based. He introduced for the first time the specific nature of the technical assistance the Soviet government desired, including all designs and specifications, plus
provisions for the dispatch to the USSR of Ford personnel for supervising construction of the factory and for enabling Soviet technicians to study Ford production methods in its American factories. The technical-assistance agreement would last for nine years, and the Soviet government would be willing to discuss adequate compensation (above and beyond costs for car components), payment of which would commence once the factory in the USSR commenced production. 94

This round of the negotiations occurred in February, but for the next three months Ford heard nothing from Amtorg, Mezhlauk, or any other Soviet official or agency. The delay apparently stemmed from a lack of unity in the top economic policy-making agencies in Moscow, particularly in Vesenkha and the Council of Labor and Defense (STO). On 4 March 1929, on the eve of the Sixteenth Party Conference that formally approved the "optimal" variant of the First Five-Year Plan, Vesenkha and the STO announced the government’s decision to build an automobile plant that would turn out 100,000 vehicles a year. No mention was made of the discussions with Ford. 95 The announcement did not delight everyone. Despite their support for a rapid industrialization drive, some left-wing elements in Vesenkha worried that the automobile plant would divert resources from more important projects. 96

Opponents on the right went further, as became clear once the STO and Vesenkha created a new agency, Avtostroi, to oversee the plant’s construction and organize
production. These opponents somehow managed to dominate the committee of experts that Avtostroi established to draft a plan for the new enterprise. Within a week of the committee’s appointment Osinskii was warning that its members, who were recruited from two of Vesenkha’s industrial design bureaus, neither believed in the project nor wanted it to succeed. His foreboding was confirmed at the end of the month, when the committee presented a draft that fell far short of its instructions. The new plant got short shrift in the draft, which called instead for expansion of existing factories in Moscow and Iaroslavl’, for the construction of a new plant to produce a limited number of heavy trucks, and for total production by 1933 of not more than 39,000 vehicles.

The very appearance of the draft project, which amounted to the same kind of "handicraft" approach Osinskii had deplored two years earlier, points up the byzantine complexity of administrative politics in 1928-1929. By April 1929 both the STO and Vesenkha had opted for "mass-production" over "handicraft," while the party and state’s highest bodies were about to sanction an industrial development plan that the Right considered impossibly optimistic. Despite the leftward swing in party politics and Kuibyshev’s position at the head of Vesenkha, advocates of a modest automobilization effort had managed to secure a draft project reflecting their position. Clearly the opponents of all-out industrialization, if not numerous, still occupied key positions in the planning
apparatus.\textsuperscript{101}

By the time Vesenkha’s presidium met on 2 April to discuss the draft, however, Kuibyshev, Osinskii, and their allies had outmaneuvered and defeated their opponents. Some members of the presidium still supported a modest production effort in the belief that the Soviet economy could not produce or absorb a large number of vehicles. The Commissariat of Internal Affairs, for example, estimated the total transport needs of all cooperative economic organizations at roughly 4,000 cars and trucks. But more powerful authorities scoffed at this estimate. \textit{Ekonomicheskaia zhizn’} denounced the committee’s report as "utterly worthless." Osinskii, who by now sat on the presidia of both Gosplan and Vesenkha, condemned the "extraordinary caution" of the experts. Kuibyshev and I. A. Khalepskii, chief of the Military-Technical Administration, felt the same way. Led by Osinskii, they persuaded the presidium to reject the draft.\textsuperscript{102}

The presidium also briefly discussed the type of vehicle to produce and where to locate the new factory. A few members favored Chevrolet designs, whereas Kuibyshev, Osinskii, and Khalepskii argued that Ford’s models were less expensive and better suited to Soviet road conditions. Since a Soviet delegation had reopened talks with Ford in February, a decision probably had been reached on this matter before the presidium gave its formal approval. Much the same can be said of Vesenkha’s decision to build the plant on the outskirts of Nizhnii-Novgorod, a city of
258,000 and the administrative center of the overwhelmingly agricultural Nizhgorodskii krai. Although the presidium considered Moscow, among other Soviet cities, it voted to go ahead with a plant at Nizhnii-Novgorod, stating merely that labor was cheaper there and more readily available. Vesenskha’s design bureaus were given one month to draft a new plan for a plant that would produce 100,000 vehicles based on the Ford Model A car and Model AA truck.

The presidium’s meeting of 2 April 1929 was yet another step toward the triumph of such men as Kuibyshev, Osinskii, and other allies of Stalin, all of whom pushed their designs for rapid industrialization with single-minded determination. By mid-1929 the advocates of an all-out effort were in control of at least the top economic policy-making positions, while such right-wing figures as Nikolai Bukharin and Mikhail Tomskii were losing their formal positions of power and influence. This shift almost certainly explains Vesenskha’s actions of early 1929. In February, well before any formal decision had been made by the government, Vesenskha held detailed discussions with Ford that for all intents and purposes crystallized the final form the contract would take. And in April it decided to build the automobile factory and to use Ford designs, even though it had not yet reached a formal agreement with the company. It seems likely that Kuibyshev was confident of the outcome.
On 6 May, Mezhlauk, still in New York, contacted Edsel Ford with his government’s final proposal, which was almost indistinguishable from the agreement signed on 29 May 1929. He closed his letter with an urgent appeal that negotiations begin "without delay," and confidently predicted their "successful termination ... in the very near future." Indeed, on 17 May Ford responded positively, and final success came on 29 May in the form of a technical-assistance agreement between Ford and Vesenkha. According to its provisions, Vesenkha would purchase the components of 72,000 automobiles and trucks, which over four years would be shipped to the USSR for assembly in a reconditioned factory. It would also acquire the designs for both the Model A car and Model AA truck, as well as those for all equipment used in their production, and would send fifty workers a year to study production methods in Ford plants. The total cost of the agreement was put at $30 million.

The Soviet press erupted in well-orchestrated but genuine enthusiasm at news of the contract with Ford, who had for years been a virtual icon among planners and ordinary folk alike. The agreement certainly promised to aid the Soviet Union in its quest to modernize. Osinskii, who for years had championed the cause of "automobilization," shared the widespread conviction that the contract would "speed the automobilization of the country," but he was realistic enough to admit the very real obstacles that still blocked the road.
had to mobilize the labor, equipment, and raw materials needed to construct the plant, which was scheduled to begin operations on 1 January 1932. It also had to train supervisory, technical, and production personnel who would keep the plant running smoothly. Even then, the success of its operations at Nizhnii-Novgorod depended to a large extent on the creation or expansion of a host of related industries that would support the automotive complex.110

As we shall see, Osinskii was an unwitting prophet, for the problems that soon overwhelmed the construction site at Nizhnii-Novgorod turned the project into anything but the model of "Fordizm" that many hoped the participation of the American automobile wizard would create.111 It is already clear from the preceding discussion that most of the projects American firms got involved in experienced difficulties in the earliest stages of planning, and that one reason for seeking American assistance was to bring a semblance of order to the planning process and help move construction quickly forward. And it should not surprise anyone now to learn that all too often the Americans were powerless, that they could not impose order upon Soviet trusts, directors of enterprises and construction sites, and workers. There is no question that the technical-assistance agreements had an overwhelmingly positive effect upon the Soviet industrialization drive. But all the advanced machinery and expert advice in the world could not overcome the limitations imposed upon men trying to do their jobs in an economy strained to its limits, one where
human and material resources were in alarmingly short supply and where political decisions and bureaucratic interests, rather than market forces, wrote the laws of supply and demand. In the next chapter, I will examine how two of the technical-assistance agreements noted above were carried out, in an attempt to illustrate more concretely the limitations imposed upon Soviet planners and industrialists as they sought to Americanize the industrial landscape.

2See the sources cited in the previous note; "K dogovoru Amtorga s General'noi Elektricheskoi Kompanieii," EZh, 20 October 1928; and "Washington ne vozrazhает protiv dolgosrochnyh kreditov SSSR," Pravda, 20 October 1928.

3There are massive hydroelectric dams were indeed important to the industrialization drive, but Western observers overlook another critical aspect of the Five-Year Plan not directly connected to the electrical industry, to wit: most of the major industrial complexes (Magnitogorski, Stalingrad Tractory Factory, Nizhnii-Novgorod Automobile Factory, and so on) were almost fully integrated enterprises that were designed to have their own power- and heat-generating stations. Assistance from IGE would have been equally important for these smaller installations as well.


5Ibid.; Hugh Cooper, "Present Day Economic Conditions in Russia," June 1927, Commerce Papers, box 535, folder: Russia: General 1927-1928 & undated; William R. Castle (East European Division, State Department) to Herbert C. Hoover (secretary of commerce), ibid.; "Nashi khoziaistvennye sviazii s Amerikoi," EZh, 30 October 1928.

6"Razmeshchennie zagranichnykh zakazov dlia elektrostroitel'stva," TGP, 13 January 1928.


8"Sovremennaa elekotrekhnicheskaya promyshlennost' Ameriki," EZh, 14 August 1928.

9"Eleketrokhnicheskaya promyshlennost' Ameriki," TPG, 20 July 1928. On Glavelektro's special interest in the laboratory facilities of GE and other electric-equipment firms see "Izuchenie vysookikh napriazhenii v Soedinennennnykh Statah," ibid., 27 July 1928. The delegation was particularly astonished by the sophisticated electrical research facilities of American universities, notably those
at Stanford University and the California Technological Institute, since these were models of the sort of link the Soviets hoped to create between their own industries and training institutes.

10"U chastie amerikanskikh firm v elektrostroitel' stve v SSSR," EZh, 12 February 1929.


12"Chto daet nashei elektropromyshlennosti dogovor s 'Dzheneral' Elektrik'," EZh, 4 April 1929.


14"V Amerike zakazany 4 turbogeneratora dlia Dneprostroia," Pravda, 31 March 1929; "Ispol'zovanie amerikanskoi tekhniki," EZh, 5 April 1929.

15"Amerikanskaia delegatsiia v Moskve."

16By late July 1929 Glavelektro was reporting the first positive results of the IGE accords. See "Inostrannaaia konsul'tatsiia polnost'iu sebia opravdala," Pravda, 28 July 1928.

17Citations to this effect from the Soviet press follow in subsequent notes. This particular quote comes from one of the more amusing—to present-day Americans—articles: "Na puti k 'elektrifikatsii' sovetsko-amerikanskikh otnoshenii?" Pravda, 21 October 1928. An English translation, "On the Road to the 'Electrification' of American-Soviet Relation?" is located in Louis Sussdorff, Jr. (charge ad interim, Riga) des 5644 to Kellogg, 23 October 1928, RG 59, Confidential Post Records, Russia and the Soviet Union, Part 2, Section B [866.12R], reel 17.


19This charge recurs in the Soviet press throughout the period under discussion. A good example of official Soviet attitudes toward State Department policy at this time is "Otgoloski sdelki GEK s Amtorgom," EZh, 23 October 1928.


21Ibid.
22 See ibid.; and the statement of Clark H. Minor (president, IGE), 16 October 1928, RG 59, 611.1115 General Electric Co.-Amtorg Contract/5-1/2.

23 See the two sources cited in note 16.


25 Few Soviet articles dealing with the IGE-Amtorg contract failed to carry at least one quote from an East Coast newspaper or journal commenting (usually favorably) on the agreement.

26 See Woll memorandum to Easley, 23 October 1928, Easley letter to Young, 23 October 1928, and Young letter to Woll, 24 October 1928, all enclosed in Easley letter to Robert F. Kelley, 29 October 1928, RG 59, 611.1115 General Electric Co.-Amtorg Contract/4-1/2. Neither Easley nor Woll were satisfied, and they continued to bombard Kelley with letters of protest, copies of which are filed under the above decimal file notation.

27 Nor did the NCF see fit to demand an explanation, perhaps because it did not expect to receive one.


29 I discovered this inadvertently in an article discussing a meeting of Soviet engineers convened to review progress in the metallurgical sector during the 1927-28 fiscal year. See "Novye giganty sovetskoi promyshlennosti," TPG, 15 July 1928.

30 For a breakdown of planned investment in metallurgical enterprises see "Vyvody po dokladu NKRXI SSSR ob obsledovani strostel' stva novykh zavodov metalloprivyshlennosti," 30 April 1927, TsGAOR SSSR, f. 374, op. 1, d. 358, ll. 32-46. "Kombinat" does not translate effectively in every case, although in general it means an "industrial complex." Quite often, as in the case of the Magnitogorski kominat, it signifies a sprawling, almost vertically and/or horizontally integrated industrial complex that, for example, takes in raw material at one end and spews out a host of consumer-ready finished products at the other.

31 Secretariat of Gosplan, "Zakliuchenie Gosplana o
meropriiatiiakh neobkhodimykh dla usileniia dobychi kamenny-ugol'nykh basseinov Sowiuz SSR," 22 May 1926, TsGAOR SSSR, f. 374, op. 1, d. 326, ll. 146-55.

32"Postanovlenie Kollegii NK RKI SSSR po obsledovaniyu stroitel'stva novyh zavodov metallopromyshlennosti (protokol No. 14)," 28 April 1927, ibid., d. 358, l. 29.

33"Doklad VSNKh i Gosplana (pri zasedanii STO) o kapital'nom stroitel'stve otdel'nykh zavodov metallopromyshlennosti," 18 May 1927, ibid., ll. 6-15.

34See "Russ Contract to Chicago Engineer."


36"Amerikanskii proekt tel'beschego zavoda," TPG, 29 June 1928.

37"VSNKh SSSR rasshiril dogovor s amerikanskoi firmoi 'Frein' o tekhnicheskoi pomoshchi," EZh, 8 August 1928. An excerpt of this article, in English, is in Sussidorff des 5571 to Kellogg, 20 September 1928, Confidential Post Records, Russia and the Soviet Union, Part 2, Section B (860.2R), reel 17. "Kombinaty" is the plural form of "kombinat." The vast majority of Russian plurals are formed by adding an "i" or a "y" to the stem. I will follow this format when forming plurals of Russian words, as it seems to me more logical—and certainly more graceful to the ear.

38"Podgotovka k stroitel'stvu novykh metallurgicheskikh zavodov," Pravda, 19 January 1929. See also "Amerikanskaia ekspertiza," EZh, 18 January 1929.


40"Perelom poka chto tol'ko v soznaniu," EZh, 4 April 1929.

41I will discuss the campaigns against the Soviet technical specialists in a later chapter. Information on these bizarre episodes (the Shakhty Affair, the so-called Industrial Party affair, and the broader phenomenon of "specialist-eating") can be found in Bailes, Technology and Society under Lenin and Stalin, chap. 5; Mark R.

42 See the remarkably frank description of difficulties in the coal fields given by Mezhlausk at a meeting of the All-Union Western Chamber of Commerce, "Amerika i promyshlennoe stroitel’stvo SSSR," EZh, 14 September 1929. Polish consular officials in Kiev and Khar’kov reported declines, on average of 5.2 percent, in the Donbas’s production of iron ore, iron, steel, and bar iron during the first quarter of the 1929-30 fiscal year (October through December). See Philander L. Cable (chargé, Warsaw) des 2987 to Henry L. Stimson (secretary of state), 8 February 1930, RG 59, 861.50Five Year Plan/42.


44 V. Goulin (chairman, State Non-Ferrous Metals Board [Vsetsvetmetzoloto]) to Lewisson (president, General Development Corp.), 25 July 1929, and Clinton Bernard (General Development) to Goulin, 11 August 1929, Gumberg Papers, box 7, folder: July 1 to September 30, 1929.


46 "Na Magnitostroie net partrukovodstva," Pravda, 21 March 1930. See also "Dogovor o tekhnicheskom sodeistvii Magnitostroiu," EZh, 26 March 1930.

47 See the last source cited in the previous note and "Magnitostroi: Amerikanskaia tekhnicheskaia pomoshch’," ZI, 23 May 1930.

48 "Eshche Odin dogovor o tekhnicheskom sotrudnichestve," EZh, 24 June 1930.

49 See the list of foreign purchases, plus a rough
breakdown according to the industries to benefit from them, in "Osvoenie zagranichnykh mashin v promyshlennosti (pod dannym INO VSNKh SSSR)," TPG, 12 September 1928. See also Sutton, Western Technology and Soviet Economic Development, 164-75.

50"Importnoe oborudovanie na predpriiatiiakh," EZh, 8 July 1928.

51See, for example, "O ratsionalizatsii pokupke zagranichnogo oborudovaniia," TPG, 4 July 1928; "Ispol'zovanie inostrannoi tekhniki," EZh, 5 July 1928; and Vesenka's decree aimed at bringing some order to planless purchases, "Organizatsiiia patsionalizatorskoi raboty," TPG, 3 August 1928. One year later Vesenka set up an investigative commission to combat the practices it tried to liquidate in its decree, testifying to its lack of success. See "Naladit' ratsional'noe ispol'zovanie importnogo oborudovaniia," Pravda, 21 July 1929.

52"Ob ispol'zovanii dostizhenii kapitalisticheskoi tekhniki (o dogovorakh po tekhnicheskому sodeistviu)," EZh, 24 July 1929.

53"Pervoochernye zadachi sovetskogo mashinostroeniia (k razrabotke plostiletnego plana razvitiiia narodnogo khoziaistva)," Pravda, 5 January 1929; Presidium of Vesenka, "Zapiska v STO o podgotovke k stroitelnomu sezonu 1929 g.," 16 January 1929, TsGAOR SSSR, f. 374, op. 1, d. 537, 11. 299-306; "Rech' V. V. Kuibysheva na 16 konferentsiiia VKP(b)," 24 April 1929, Shestnadtsataia konferentsiia VKP(b): stenograficheskii otchet (Moscow, 1929), 63-64.

54"Po mashinostroeniu vse proekty utverzhdeny," EZh, 7 April 1929; "Tekhnicheskaiia pomoshch' amerikanskikh firm sovetskому mashinostroeniu," ibid., 25 May 1929.

55See, in addition to the first source cited in the previous note, "Americanization of Production Methods," Russian Economic Notes (24 May 1929): 6-7; "Soviet-American Trade, U.S.R. Chamber of Commerce for Western Trade Monthly Bulletin, 1929, no. 6-7:8; R. F. Kelley, "Attitude and Policy of the Bolshevik Leaders with Regard to the Utilization of Foreign Technical Assistance," 15 June 1931, RG 59, OEEA, Russia Section, Staff Studies and Memoranda, 1917-1941, box 12, folder: 24A; and Sutton, Western Technology and Soviet Economic Development, 176-77. Curiously, the State Department document cited above mistakenly dates the Albert Kahn Company's technical-assistance agreement to 8 May 1929; in fact, Kahn had been involved at Stalingrad for almost two years by that time.

56"Giganty mashinostroeniia," Pravda, 20 November 1929. Also, American engineers were brought to the site to

57 The story of the Soviet government's complicated relationship with the peasantry is extremely complex, and several facets of that story remain the subject of much dispute among Western historians. For the best overall history on the subject see Moshe Lewin, Russian Peasants and Soviet Power: A Study of Collectivization, trans. Irene Nove (New York, 1975).

58 On the arrangements with the International Harvester Company, which were kept confidential for several years, see Fayette W. Allport (U.S. commercial attache, Brussels) to Chester Lloyd Jones (U.S. commercial attache, Paris), memorandum of conversation with a Mr. Brittenham of International Harvester, 25 January 1926, RG 59, 661.115/474 1/2.


60 See Vesenkha's report to the STO on the country's tractor and agricultural-machinery requirements, and possible revisions in production targets, "Plan traktorostroeniia v Soiuze," 9 March 1927, TsGAOR SSSR, f. 374, op. 1, d. 358, ll. 167-81.

61 "Vypiski iz protokola No. 321 zasedaniia Soveta Truda i Oborony ot 1-go aprelia 1927 goda," 1 April 1927, ibid., d. 337, l. 318. Arguments over what type of tractor to produce at Stalingrad had dragged on since the March 1926 decision to build a factory, and quite probably accounted in part for the delay in designing and building the factory. Opinion in Glavmetall and other agencies tended to split between those in favor of a model based on an International Harvester tractor and those in favor of one based on the Ford Motor Company's "Fordson."

62 See the remarks made by H. G. Freyn at a meeting of the Export Manager's Club of New York, 27 November 1928, included in a pamphlet published by the Information Department of the Amtorg Trading Corporation, Address by Mr. Saul G. Bron, Chairman of Board of Directors, Amtorg Trading Corporation (New York, 1927), 11.

63 "Khod postroiki stalingradskogo zavoda," TPG, 6 January 1928.

64 Narkomtorg, "Proektneoe postanovlenie STO 'O traktorospol'zovanii i tekhpomoshchi,'" 27 April 1928, TsGAOR SSSR, f. 374, op. 1, d. 374, ll. 91-94.

65 Iakovlev, note attached to Narkomtorg, "Proektneoe
postanovlenie STO 'O traktoroispol'zovani i tekhpomoshchi'," 27 April 1928, ibid., l. 90.

66Kaganovich memo to Ordzhonikidze (commissar of Rabkrin), "Zamechaniiia k dokladu Marcomtorga po ispol'zovaniu traktorov," 25 May 1928, ibid., ll. 33-35.

67See Main Concession Committee of the STO, "Osnovnye polozhenii po kontsesii na proizvodstvo traktorov," 23 June 1928, and "Protokol zasedaniia komissii STO, obrazovannoi postanovleniem STO ot 15 iiunia po voprosu ob usilenii proizvodstva traktorov," 23 June 1928, ibid., l. 105 and l. 104.

68Unfortunately, I could not locate any documents in the Ford Motor Company Archives relating specifically to the Antorg proposal, although documents of a later date refer to it.

69See Iakovlev, "Proektnoe postanovlenie STO 'Po voprosu ob usilenii proizvodstva traktorov," 19 July 1928, TsGAOR SSSR, f. 374, op. 1, d. 374, ll. 113-16. The decree was discussed at Rabkrin on 19 July, and the STO considered and approved it on 20 July.

70This, too, is a complicated story. For a quick overview of events leading to the collectivization campaign see Lynne Viola, The Best Sons of the Fatherland: Workers in the Vanguard of Soviet Collectivization (New York, 1987), 24-29.

71"Uvelichenie moshchnosti stalingradskogo traktornogo zavoda," Pravda, 29 May 1929.

72F. W. B. Coleman (U.S. minister, Riga) des 6248 to Stimson, 15 July 1929, RG 59, Confidential Post Records, Russia and the Soviet Union, Part 2, Section B [860.2R], reel 23.

73"Na stalingradskom traktorostroee: prieszd amerikanskikh spetsialistov," ibid., 6 July 1929.

74See "Stalingradskii traktornyi zavod dolzhen byt' pushchen k kontsu 1929-30 g.," EZh, 12 July 1929; and "uskorit' stroitel'stva stalingradskogo traktornogo zavoda," Pravda, 21 July 1929.

75David B. Macgowan (charge ad interim, Riga) des. 6331 to Stimson, 5 August 1929, RG 59, 861.797/16. See also "Amerikanskiy temp stroitel'stva traktorstroia: zaderzhka v dostavke konstruktii iz Ameriki sryvaet etot temp," Pravda, 2 August 1929. The steel was obtained from McClintock & Marshall Company, which was working furiously and promised to deliver the steel to Antorg at Philadelphia on 15 August. But this was the very date at which
Tractorostroi would be prepared to start work on the plant buildings' superstructures. Amtorg then arranged to have the steel shipped via the scenic route, to Leningrad, rather than along the quickest route, to the Black Sea port of Novorossiisk. The shipment finally would arrive at Stalingrad on 25 September, almost eight weeks later than Tractorostroi had anticipated.

76 The Soviet press hammered away at the "waste" of foreign expertise at Stalingrad and other major enterprises throughout the Five-Year Plan. For this particular case, a convenient English-language summarization can be found in "Work of Foreign Engineers and Workmen in Soviet Russia," Russian Economic Notes (3 October 1930): 4-5, which also contains the information mentioned in the present paragraph.

77 The literature on this topic is vast. Most useful are Erlich, The Soviet Industrialization Debate; Carr and Davies, Foundations of a Planned Economy, 1926-1929, vol. 1; Lewin, Political Undercurrents in Soviet Economic Debates; and Bailes, Technology and Society under Lenin and Stalin.


79 For some revealing anecdotal information on disputes over the earliest planning drafts see Abram F. Khavin, Shagi industrii (Zapiski zhurnalista) (Moscow, 1957), 38-46.

80 The New Economic Policy, inaugurated at Lenin's insistence at the end of the Civil War, sought to revive the Soviet economy by scaling back state control over large segments of the national economy and permitting free markets in the production and distribution of many goods and services, including most light industry and agriculture.

81 "Amerikanskii avtomobil' ili rossiiskaia telega?" Pravda, 20 July 1927; ibid., 22 July 1927. See also ibid., 21 July 1927; and the ensuing debate between Osinskii and spokesmen for Gosplan and Vesenkha in Pravda, 14, 17, 27, and 28 August 1927.

82 "Amerikanskii avtomobil' ili rossiiskaia telega?" Pravda, 22 July 1927. See also "Kakie avtomobili nuzhny Sovetskomu Soiuizu?" EZh, 13 January 1929; and, for military opinion, F. Shabanov, "Avtomobil' v sovremennoi voine," Vgennaia nauka i revoliutsiiia 2 [1927]: 105-18; and Vladimir K. Triandafillov, Kharakter operatsii sovremennykh armii, 3d ed. (Moscow, 1936), 19-21, 118-20, 159-60.


The firms Amtorg approached were Ford, General Motors, Durant, and Studebaker (D. C. Poole [charge ad interim, Berlin] des. 4124 to Stimson, 19 November 1928, RG 59, 861.797/9. See also Nevins and Hill, Ford: Expansion and Challenge, appendix 1; and Gumberg to John Gregg (International Chamber of Commerce), 24 March 1928, Gumberg Papers, box 6-A, folder: January 1 to June 30, 1928. The STO authorized the approach at the same time it was seeking American help for speeding up Soviet production of tractors. See "Protokol zasedaniia komissii STO, obrazovannoi postanovleniem STO ot 15 iyunia po voprosu ob usilenii proizvodstva traktorov," 23 June 1928, TsGAOR SSSR, f. 374, op. 1, d. 374, l. 104.

Gumberg to Schley, 31 December 1928, Gumberg Papers, box 6-A, folder: November 1 to December 31, 1928.

For the Soviet proposal, and on the discussion that follows regarding the Ford Motor Company's counterproposals, see W. E. Moke (Foreign Department, Ford Motor Co., Edgewater, NJ, plant) to Gaston Plantiff (unidentified Ford Motor Co. official), 12 September 1928, Ford Motor Company Archives, Accession 572, box 24, folder: Foreign Sales (incl. U.S.S.R.), Henry Ford Museum and Greenfield Village, Dearborn, Michigan (hereafter Ford Archives, with filing information).

Ibid.

Moke to Plantiff, 21 September 1928, ibid.


Poole des. 4124 to Stimson, 19 November 1928, RG 59, 861.797/9.

Gumberg to Schley, 31 December 1928, Gumberg Papers, box 6-A, folder: November 1 to December 31, 1928.
Mezhlauk's visit and his proposal are discussed in Mezhlauk memorandum to Edsel B. Ford (president, Ford Motor Company), 6 May 1929, Ford Archives, Acc. 199, box 1A, folder: Amtorg Trading Corp., 1929-1930. See also Nevins and Hill, Ford: Expansion and Challenge, appendix 1.

"100,000 avtomobilei v god: budem stroit' moshchnyi avtomobil'nyi zavod," Pravda, 5 March 1929.

Abram F. Khavin, Kratkii ocherk istorii industrializatsii SSSR (Moscow, 1962), 123.


"Zametki ob avtomobil'nykh delakh," Pravda, 20 March 1929.

"Kakuiu mashinu dolzhen vypuskat' novyi zavod," Ezh, 28 March 1929; "Inzhenernyi tekhniki Avtotresta o novom avtomobil'nom zavode," ibid., 2 April 1929.

Piatilet'nyi plan narodno-khoziaistvennogo stroitel'stva SSSR 2:164.

Both Gosplan and Vesenkha had been purged of their "more cautious planners" in October 1928 (see Rees, State Control in Soviet Russia, 174).

"100,000 avtomobilei v god," Ezh, 3 April 1929. See also "Bol'she smelosti," ibid.; and Abram F. Khavin, U rul'ia industrii (Dokumental'nye ocherki) (Moscow, 1968), 67-68.


See "100,000 avtomobilei v god," Ezh, 3 April 1929; "Bol'she smelosti," ibid.; and Khavin, U rul'ia industrii, 67-68.

See section 2 of "Rezolutsiia XVI konferentsii VKP(b) o putiakh pod'emna sel'skogo khoziaistva i nalogovom oblegchenii seredniaka," April 1929, Direktivy KPSS 2:38-40; and Rees, State Control in Soviet Russia, 168.


Ford Motor Company to Mezhlauk, 17 May 1929, ibid.
Ford Motor Company to Mezhlaук (contract attached), 17 May 1929, Ford Archives, Acc. 390, box 87, folder: Autostroy. See also Coleman des. 6228 to Stimson, 25 June 1929, RG 59, 861.50/664.

"Dogovor s Fordom i nashe avtostroenie," EZh, 7 June 1929.

See his series of articles, "Ocherednye voprosy nashego avtostroritel’stva," in Pravda, 8, 9, and 11 June 1929. See also Coleman des. 6228 to Stimson, 25 June 1929, RG 59, 861.50/664; and Coleman des. 6238 to Stimson, 25 June 1929, RG 59, 861.797-Ford Motor Company/1.

For example, A. F. Tolokontsev (presidium, VSNKh), "Za shirokuiu avtomobilizatsiiu SSSR," EZh, 7 June 1929; and M. L. Sorokin (chairman, Avtotrest), "Nemedlenno razvernut’ rabotu," ibid., 8 June 1929.
CHAPTER IV
The Changelings: Tractors, Autos,
and the Debasement of Fordism

It is sometimes asked: Can we not slow the tempo a
bit, hold back movement? No, comrades, we must
not! . . . On the contrary, we must increase it to
the limits of our strength and possibilities. . . .
To slow the tempo means to lag behind. And
laggards are beaten. . . . The history of old
Russia consists of constant beatings because of her
backwardness . . . because it was profitable and
could be done with impunity. . . . Do you want our
socialist fatherland to be beaten and lose its
independence? If not, you must liquidate our
backwardness quickly. . . . We are fifty to one
hundred years behind the leading countries. We
must cover that distance in ten years. Either we
do it, or they will crush us.

Stalin, speech at the All-Union Conference
of Industrial Workers, 4 February 1931.¹

Anyone struggling to come to grips with the enormity of
the Stalinist "Revolution from Above," to understand the
reasons that made a man willing to demand, and a nation
able to withstand, the unimaginable sacrifices of forced-
pace collectivization and industrialization, eventually
looks to this famous passage. In its original Russian, one
not only recognizes the mannerisms of the former
seminarian; one can almost see Stalin and catch the odor of
Gertsegovina flor, his favorite tobacco. Intangibles
aside, however, this passage truly does illuminate, I
think, one of the dark recesses of Stalin's mind. Shorn of complex theories and lofty principles, it nonetheless provides as exact an explanation as possible for the breathtaking speed with which Stalin and his party colleagues drove their country down the path of industrial development.

It also contains the seeds of an explanation for the failure to achieve certain goals that infused the First Five-Year Plan, most notably the desire to transfer not only American technology but also American methods to Soviet industry. The hothouse atmosphere of Soviet industrialization was ideal for fostering the rapid growth of the simpler and cruder specimens of economic life. By mixing colossal capital investments with a party-state apparatus willing and able to follow orders, and leavening the mixture with the pervasive exercise of police power, Soviet authorities were able to wring from the soil ever greater amounts of coal, iron ore, crude oil, and precious metals. They were also able to take these and other raw materials and forge them into the basic hallmarks of an industrial economy: factories, power stations, and a growing proletariat, which together churned out the steel, vehicles, machine-tools, and weaponry we associate with classic heavy industry.

The environment so suited to the growth of crude production, however, was hostile, even lethal, to more advanced and complex forms of economic life, to the set of attitudes and practices that Soviet officials called "the
American method of work." Transplanted American technology often performed quite well in the Soviet economy and contributed to overall growth; however, the ground had not been prepared to support the growth of those flowers of American industry that Soviet officials admired from afar and professed, at least, to desire. Instead of a well-developed network of polytechnicums and collaborative ventures between industry and education, the USSR had an expanding system of schools and institutes that were subordinate to industry and its short-term, pressing demands for people having the most elementary skills.2 Rather than a genuine proletariat formed over generations and accustomed to the rhythms of factory and urban life, the Soviet Union possessed a churning mass of peasants, nurtured in the cadence of a premodern agricultural existence, and only recently uprooted from the land and exposed to the alien features of the urban, industrial landscape.3

Other attributes of the "American method" simply could not survive the impoverished soil and superheated atmosphere in which workers, specialists, and managers had to operate. Planners might enthuse about cost-effectiveness, rationalization, and a flexible approach to problem-solving, but the plan’s emphasis on producing specific quantities of a given item led factory directors and their superiors in the economic apparatus to focus entirely on meeting targets, no matter what the cost and method. Political developments during the Five-Year Plan
only reinforced this trend. In the widely publicized Shakhty, Industrial Party, and Metro-Vickers trials of 1928 and 1930, Soviet planners and technicians and foreign specialists were accused, tried, and convicted of sabotage by a pitilessly cynical state seeking scapegoats for mounting economic problems. Along with scores of other instances of punishment for alleged "wrecking," these trials revealed all too starkly the increasingly dire consequences of failure--imprisonment or execution--and served mainly to paralyze the economic apparatus further as people shunned responsibility and risk-taking. The only ingredient that survived was flexibility, as producers worked outside the centralized distribution system to obtain scarce raw materials and parts and falsified records to conceal failures.

Workers, meanwhile, had no incentive to perform well, let alone improve their performance, because to finance development the state ruthlessly squeezed the nonindustrial sector. Shortages of every conceivable kind of consumer goods were matched by the steady erosion of the ruble's value. Insufficient, substandard housing in the burgeoning cities, particularly at the sites where the plan's major projects were going up, led to a tidal wave of impoverished workers wandering the country in search of better living conditions. Although paying lip-service to improving housing and other social services, the state ultimately resorted to strict but ineffective (and therefore arbitrary) penalties against absenteeism and the
reimposition of internal passports. In short, the center lavished resources on the means of production but stripped the vast majority of workers of every incentive to perform their jobs well and think beyond their next meal.

The First Five-Year Plan brought rapid industrial growth to the Soviet Union, but it stifled development of some of the other important accoutrements of modern Western societies. The Soviet economy’s performance in many basic indexes of production was impressive, but it was attended by unprecedented inefficiency and waste. The importation of American and Western technology worked its desired result. In Soviet conditions, however, no amount of capital investment could instil Soviet workers and managers with American attitudes or force them to adopt American methods. As we shall see in the following case studies, moreover, Soviet conditions often prevented the Americans brought over to help build industry from putting their own attitudes and methods to work. The result was a peculiar hybrid; or, to bowdlerize a phrase much in use at the time, it was an industrial structure that was American in form, Soviet in content.7

* * *

When construction of the Stalingrad Tractor Factory came to an official conclusion on 17 June 1930, Pravda hailed the immense complex as the embodiment of "the best that capitalist technique and science could give." Within its walls were machines produced in over eighty American factories, all of it representing "the latest achievements"
of American technology. Traktorostroi had been "completely dependent" upon American firms throughout construction, Pravda admitted, but the editors rightly pointed out that it was Soviet workers who deserved the most credit for whatever had been accomplished in Stalingrad. After all, they were ultimately responsible for completing construction ahead of time, despite alterations in plans, disruptions of supplies, and confusion in factory management and party supervisory organs. There is more than a grain of truth in the paper’s assertion that the Stalingrad factory was "a child of the collective strength of, of everything good in, the working class of the USSR."8

In many ways, however, the child was also a changeling. Although crammed with modern American machinery, built along American designs and under American supervision, and initially staffed by hundreds of American specialists, the Stalingrad factory "behaved" in a most un-American fashion after it was weaned from its American builders. Like an ugly, ill-tempered youngster whispered to have been left behind by mischievous fairies, this "child of the Soviet working class" displayed none of the traits Soviet officials hoped it would inherit from its American parentage. And only by twisting Pravda’s intent can we agree that the construction and operation of the factory "provided the highest example of worker enthusiasm and socialist labor discipline."9 Every aspect of work at Stalingrad presaged events in other sectors of the Soviet economy, but the omens scarcely were good. Waste,
inefficiency, and planlessness became the hallmarks of Stalingrad. Only later would it become clear that these traits permeated the entire Soviet economy, justifying, in a fashion, Pravda’s claim and making Stalingrad a true child of the Soviet system of industrialization.

As we have seen, plans for the Stalingrad Tractor Factory underwent more than three years of constant changes before the Council on Labor and Defense (STO) approved in May 1929 a version that in its essentials reflected the plant that would open a year later. Prior to this decision, Traktorostroi officials had to focus their activities at the construction site mainly on preparatory work: laying a five-kilometer railroad spur to the grounds and putting in a road to the city; building a temporary power plant and tapping into Stalingrad’s water and sewer systems; and putting up wooden barracks for workers and brick buildings for the factory administration.10 Although hardly the sort of achievements that Moscow’s central planners liked to trumpet, this preliminary groundwork actually made possible the frenetic pace of construction that soon got underway. Equally important was the STO’s decision in June 1928 to obtain master blueprints that would permit the rapid expansion of the factory’s productive capacity.11 The factory was stocked at great expense with an “excessive number of machines,” in one instance 106 were installed when the American designed called for 42. The machines were planned to operate, moreover, at speeds varying from one-third to one-half the
pace typical for an American tractor factory. The goal, according to officials at Gipromez, was the "gradual absorption" of American standards and production methods.\textsuperscript{12}

The STO's decision proved farsighted, for by May 1929 crash collectivization and the enraged peasantry's "liquidation of the horse as a class," as Soviet Defense Commissar Kliment Voroshilov despairingly put it, made a rapid expansion of tractor production essential.\textsuperscript{13} In late May the STO approved a directive ordering that Stalingrad's annual productive capacity be raised from 10,000 to 40,000 tractors, appropriating funds as well for an even greater expansion, should it prove necessary. The Albert Kahn Company quickly agreed to revise its plans for the factory accordingly, and Henry Ford personally intervened to grant Russian engineers access to Ford's tractor factory in Cork, England, where they hoped to send a large contingent to study production methods.\textsuperscript{14} With the arrival in Stalingrad of two of Kahn's engineers in early July, construction of the main buildings was poised to begin in earnest.\textsuperscript{15}

Initially, both the factory's administration and the regional party committee stayed one step ahead of the plan, mobilizing a sufficient number of hands and the requisite raw materials, particularly structural steel, to keep construction moving smoothly. The factory, we should recall, was scheduled to begin production sometime during the second quarter of the 1930-31 fiscal year, which meant no later than March 1931. But in early May 1929, when considering the expansion of capacity at Stalingrad, the
STO also raised the possibility of moving up the completion date. Glavmashinstroi, which was responsible for equipping the factory, declared its readiness and ability to meet an earlier target. Local party officials, even if they had any doubts, dared not express them. With this concurrence, and in light of the rapidly developing catastrophe in the countryside, the STO on 20 July ordered Vesenkha to ensure that production at Stalingrad began by the end of 1930.

Construction at first proceeded rapidly. On 29 July Traktorostroi's administrative and technical officials convened to work out a precise schedule of tasks for the ensuing months. Among others things, they agreed that the buildings housing the main production shops should be completed by 1 December of that year and that the entire physical plant would be built by 1 April 1930. That such a pace proved sustainable was due mainly to two factors: some five thousand workers agreed to put in ten-hour shifts, seven days a week; and the American engineer supervising construction, John Calder, was given complete control over affairs on site, while his compatriots effectively utilized the authority given them to become the "main executors of work." As a result, by mid-August Traktorostroi was confident that it would have the main instrument shop built by September, the lab by November, and buildings for the factory's technical school, fire department, and administration by December.
The work proceeded so well, in fact, that at the end of the year Traktorostroi not only accepted the STO’s request that annual capacity be increased to 50,000 tractors by the 1930-31 fiscal year but also announced that it would be able to complete the factories at Cheliabinsk and Khar’kov without the large degree of American participation needed at Stalingrad.19 Albert Kahn, whose firm had designed the plant and whose engineers had effective control over construction activities, wrote the chief of Vesenkha’s Foreign Department that "the workers and technical personnel at Stalingrad were achieving results that in no way could be achieved" in the United States. Some shops were almost five months ahead of schedule.20 By the end of January 1930, the mechanical-assembly lines, forge, and foundry shops were complete: "the shops," the STO proudly reported, "are ready for the installation of machinery."21

The STO’s January report was the last official statement on Traktorostroi free of alarm, warnings, and complaints about the situation at Stalingrad. Not coincidentally, it was in late January that the American engineers at the site ceded their primary responsibility to Soviet officials. With construction essentially complete, and installation of machinery under way, emphasis was gradually focusing on matters beyond the control of the American experts, in particular on ensuring that the plant would have enough qualified workers and engineers to begin and sustain efficient operation. Under normal circumstances, as Vesenkha pointed out in early April, "one
should set about preparing qualified workers well before construction of a factory is begun." At Stalingrad, however, "no one worried about [workers] before February." Armed with the latest word in foreign technology, the tractor factory needed workers whose skills were commensurate with the technological level of the equipment they would operate. Prior to February, however, neither Vesenkha nor the Commissariat of Labor had made any preparations, and now, with start-up scheduled to begin within a few months, officials there were scrambling to find bodies. Their first reaction was to "mobilize" seven thousand members of the Young Communist League (Komsomol), none of whom any any special training.22

A tremendous deficit of skilled workers posed the gravest threat to operations at Stalingrad. According to Traktorostroi's figures, the factory required 3,050 skilled workers, of various qualifications, in order to operate properly. As of mid-April, only 718 such workers were known to be available: 300 were Americans hired through Amtorg; 300 were skilled Soviet workers who had helped install machinery at the plant and would stay on; and 118 were to be graduated from the factory's technical school, which had taken in its first group of students the year before. On 1 April, Vesenkha ordered the Komsomol to supply the tractor factory with 1,037 skilled workers and notified several trusts and factories under its own control that they must transfer another 431 skilled workers to Stalingrad. Almost two weeks later, most organizations had
not even reacted to the order, and the others were either
dragging their heels or seeking ways to avoid compliance.
One worker at Stalingrad complained that the "criminal
attitude" toward Vesenkha’s order pervaded every economic
and party organization remotely affected by the decree:
they were "preoccupied with the interests of their own
enterprises, forgetting the general interests of socialist
construction."23 The recruitment and transfer of skilled
workers went so badly, in fact, that on 29 April factory
officials decided to terminate the effort and try to make
do with the workers on hand.24

The "Feliks Dzerzhinskii Stalingrad Tractor Factory"
went on line on 17 June 1930 to tremendous acclaim
throughout the Soviet Union. The "giant of socialist
industry" was a critical component of the USSR’s economic
development plan as well as a useful element in Moscow’s
propaganda campaign abroad. No doubt Stalin was sincere in
saying that the factory’s fifty thousand tractors would be
"fifty thousand shells for exploding the old bourgeois
world and paving the road toward a new socialist structure
in the villages"; he surely would have hoped that one
American engineer was correct when he remarked that the
achievement at Stalingrad would "smash all the Western
world’s doubts that the USSR was capable of carrying out
its gigantic industrial program."25 To realize such
intangible goals, however, the factory first had to
accomplish more prosaic tasks, above all by producing the
required number of tractors, at an affordable cost, and at
a reasonable level of quality.

To say that the Stalingrad factory fell short of these goals would be a colossal understatement. Back in April, a special commission of the All-Union Auto-Tractor Association (VATO) had won approval of an "unfolding schedule" of production that would see the factory begin continuous operations on 1 October 1930 and turn out 5,000 tractors during the following three months. Thereafter, quarterly production targets would rise to 8,000, 10,000, and, by 1 October 1931, 12,000 units. It was not an overambitious schedule, but authorities very quickly had reason to worry that even this modest pace could be achieved. On 11 July, almost a month after the factory opened, the vice-president of the First National Bank of Chicago visited the tractor factory and reported, incredulously, that only two tractors had so far been built. The visitor, Walter Lichtenstein, stressed the word "built," for the two machines had not rolled of the plant's assembly lines but had been built by hand: "even the pistons were ground by hand." Although impressed by the "exhibition of modern machinery" at the plant, "everywhere parts are still missing and nothing is hooked up." The resident American workers, he wrote, "all agreed that production could not possibly begin for another year, and even then they doubt whether there has been adequate provision made for a regular supply of raw material."

The problems, as we shall see, had nothing to do with the factory itself and everything to do with the workers
who manned it and the industries supposed to be supplying it. In late July Vesenkha’s presidium held an emergency meeting to investigate ways of correcting the "disastrous" situation at Stalingrad. Among a veritable menu of shortcomings, the most elementary obstacle to normal production was a total lack of specialty steel needed for tractor components and portions of the body. Vesenkha had designated the "Krasnyi Oktiabr’" mill, located in Stalingrad, as the chief steel supplier for the tractor factory. Stal’, which was the primary steel-producing trust in the Soviet Union and the directing agency of the "Krasnyi Oktiabr’" plant, never bothered to acquire the machinery necessary to produce the sort of steel the tractor factory required, insisting that the steel already being produced in Stalingrad was adequate. In fact, the steel fractured in the tractor factory’s presses, choking production before it could begin and endangering the survival of men and machines. There was only one solution to the "steel famine": importation of high-grade steel from the United States and Europe.29

Soviet officials could not have been reassured to learn of this possible escape route. For one thing, depressed world markets for the USSR’s raw materials were cutting deeply into the country’s foreign-exchange earnings, and in early September word went out from Moscow that all factories, trusts, and government agencies must rework their five-year plans to eliminate unnecessary imports.30 Such a limitation might not have bothered officials in
Stalingrad, since the Soviet Central Bank had been engaged in a fruitless campaign against "unauthorized" purchases of foreign goods by local enterprises determined to "overfulfil their import plans."31 But another key ingredient in Stalingrad’s unpalatable stew did prevent officials from taking the "foreign route": Amtorg’s mystifying inability to purchase and ship machinery needed to fill out the factory’s shops. Vesenkha discovered in July that some of the plant’s basic shops were missing 25 percent of their machines and installations.32 On 19 August the director at Stalingrad, Ivanov, publicly complained that Amtorg was delaying the shipment of critical machinery and, in some cases, had only recently submitted orders to American firms. Amtorg had even lied about its activities, supplying VATO with detailed information about shipments that, once ships moored in Soviet ports, proved to be fictitious.33

With Soviet steel mills physically incapable of providing the tractor factory with the proper grades of steel, and with a large percentage of the basic productive machinery still in America, authorities in Moscow were powerless to dictate measures that might get production going. This explains both the content and the exasperation of a decree of late September 1930, issued by the party Central Committee, one of the few administrative organs in the Soviet Union that possessed and wielded real power. Unable to conjure up steel and machinery, the Central Committee focused its wrath upon the regional and city
party and Komsomol organizations, blasting their slipshod "organizational work" and demanding that they immediately take measures to raise the "mass political and cultural level" of the plant's labor force so that, once all necessary machinery and supplies were available, the factory could operate properly. Above all, they were to "struggle with the backward attitudes" that many workers and technicians held toward American specialists and their methods for organizing production.\(^3\)

The latter point was important because, once construction of the factory was complete and direction passed into Soviet hands, relations between Soviet workers and specialists and their American counterparts deteriorated rapidly. In late August a Soviet investigator, K. Rustavelli, reported that more than three hundred American specialists working at Stalingrad had achieved "negligible" results. "The fundamental cause," he asserted, was "a lack of ability and a lack of desire to work with the Americans." When they were not put to work at tasks far below their qualifications, which happened all too frequently, they were overtly opposed by "zealots of Russian 'universalism' and 'omniscience'" who singlemindedly refused to take advice. The result was tremendous waste of American know-how and fearsome destruction of delicate machinery. Even party members on the shop floor were obstructing the Americans' work; as one activist proclaimed, "we ourselves made the revolution, and we ourselves will put industry in shape." The tractor
factory's newspaper had carried several, increasingly shrill warnings against the "outrageous attitude" toward Americans, but factory officials would not or could not intervene. Indeed, an American who left the factory in disgust in late September declared that "the workmen will not obey their foremen unless they wish. The foremen in turn disregard at will the directions of their superiors and so on." In his opinion, "no discipline whatsoever" existed at Stalingrad.

The Central Committee's decree was aimed directly at these sorts of problems, but three months later VATO was complaining that little had been done to correct the situation. Tractor production was inching upward, but still was "dependent upon "telegraphic communications with America and Europe." Soviet technical personnel, particularly Communists, displayed a "criminally flippant attitude" toward the suggestions of American specialists. VATO offered no ideas on how to overcome these problems, which was perhaps just as well, since it had no real authority to discipline party members. That sort of power resided elsewhere, and it was finally exercised in late April 1931, when Sergo Ordzhonikidze, chairman of Vesenko, personally inspected the tractor factory and bluntly ordered corrective measures. The factory, this powerful ally of Stalin complained, was "in an absolutely unsatisfactory condition":

1) There is a complete lack of business calculation;
2) Workshops are full of production refuse; rubbish, dirt and garbage are lying around the yard;
3) There is no order in the workshops;
4) Workshops are always full of persons walking around, persons not belonging to the plant, and idlers lounging around;
5) From eight to ten persons are gathered around one lathe. In the departments the skilled workmen and engineers are not on their jobs;
6) There is absolutely no control over the attendance of workers;
7) Conveyors are stopped and started at will and without any supervision.

This list of shortcomings is indicative of much more than purely technical problems; as Ordzhonikidze understood, by mid-May 1931 the Stalingrad tractor factory was completely demoralized. The defects he identified involved basic principles of work and organization in a modern American factory, principles for which Soviet leaders had spent tens of millions of dollars hoping somehow to transfer to their own industrial enterprises. The remedies he proposed were equally fundamental: cleaning up shops; assigning precise duties to workers and technicians; instituting basic cost-accounting procedures; requiring workers to complete their shifts; and banning non-employees from the shop floors. One wonders if Henry Ford ever had to demand that "all orders given by the administrative and technical staff shall be executed immediately."38

Ordzhonikidze’s journey to Stalingrad would not be his last visit to a troubled enterprise, and it would not be the last time that such a mission got results. Production at once began to climb, in fits and starts, from around 15 units per day in April, to 120 per day in December 1931.39 The December figure was lower than the target of 150, and the quality of the factory’s tractors varied from bad to
marginal, but this was still a considerable improvement. The upswing in the plant's performance had little to do with external factors, since most of Stalingrad's suppliers, particularly "Krasnyi Oktiabr'," continued to fall far short of their obligations. Instead, the change was fueled by two internal developments: the imposition of discipline on workers and managers alike; and the decision to do away with equalized wages (uravnilovka). Henceforth, technical personnel received higher wages than workers, skilled workers got more than the unskilled. Perhaps no less important, Stalingrad became one of the first enterprises in the USSR not only to abandon uravnilovka, a cherished "achievement of the socialist revolution," but also to place its workers on a rigid, piecework pay scale, one of the "methods of Ford" that Soviet propagandists proudly proclaimed would never be adopted by the Dictatorship of the Proletariat. One American reported that when piecework was adopted on 1 July, "workmen were spending only half an hour over work which formerly occupied them four hours."

The abolition of uravnilovka, and indeed Ordzhonikidze's recitation of the ills plaguing the tractor factory, were symptomatic of a sea-change in official attitudes toward the growing chaos in Soviet industry and the measures needed to end the turmoil. Both followed quickly on the heels of a speech Stalin delivered in Moscow before a conference of economic planners and captains of industry. The speech, which quickly became known as
"Stalin's Six Points," examined the state of Soviet industry, diagnosed its ills, and prescribed six forceful measures that, Stalin hoped, would cure the system. In addition to abolishing equalized wages, the general secretary proposed the adoption of cost-accounting procedures throughout industry, greater centralized control over the economy, and stronger procedures for affixing responsibility to individuals and institutions guilty of waste, failure, and fraud.\(^{43}\)

Only the last measure had any real significance, and its impact was disastrous. Equality of wages had been eroded for years as the ruble declined in value, consumer goods grew ever more scarce, and party officials and other members of the economic elite derived a greater portion of their benefits from access to special stores and services closed to ordinary people. Cost accounting had no meaning in an economy of scarcity based on centralized command, and it would be hard to imagine how a completely centralized economy could be further centralized. Only the decision to make people more responsible for their actions had a visible impact, but because it was really a decision to assign blame when things went wrong its impact was probably more negative than anything else. Heads of trusts, directors of enterprises, and foremen on the shop floors were made "responsible" for what happened on their watch, but they were not given the authority to decide what would happen. The result, a prominent Soviet industrial engineer noted, was a "flight from responsibility" as officials
desperately tried to avoid doing anything that might catch the center's attention and provoke its wrath. Attempting to strengthen its control over industry, Moscow instead created yet another incentive for officials throughout the party and economic bureaucracies to avoid taking any independent action, shun any semblance of responsibility, and when something went wrong, to shift the blame or cover up the event, no matter who or what was "responsible." It was the furthest thing imaginable from "American methods," and it pervaded every sector of the Soviet economy, even the one most closely patterned after its American counterpart: the automotive industry.

* * *

Within days of Vesenkha's decision on 2 April 1929 to locate the new automobile factory in Nizhnii-Novgorod, local party officials were scrambling to locate and mobilize the resources the huge project would consume. On 6 April the oblast' organizational committee in Nizhnii-Novgorod established an assistance committee and technical bureau, with members drawn from local planning agencies and factories, whose sole responsibility would be to aid construction. The assistance committee's first order of business was to survey the region's enterprises and decide how they could be most logically linked to the automobile factory. To ease the task, the organizational committee ordered all local planning bureaus, economic councils, and construction, supply, and production enterprises to cooperate fully with the assistance committee as well as
Avtostroi’s officials. Significantly, and with no regard to prior commitments, all enterprises under local control were told to "reexamine their five-year plans—particularly the current year’s plan"—to ensure that Avtostroi received the necessary raw materials and manufactured goods. Enterprises located in the region but under central control were instructed merely to "clarify their potential productive assistance" to Avtostroi.46

At the national level, meanwhile, Gosplan and Vesenkhia tried to coordinate the activities of plants and the administrative agencies whose participation was essential for constructing the new factory. On 8 June 1929, Gosplan convened an interagency meeting to determine construction and production schedules.47 The first order of business was to reequip the "Gudok Oktiabria" factory near Nizhnii-Novgorod where Ford components would at first be assembled. This work was to be completed by 1 January 1930, so that the supply of cars and trucks could begin well before the main production plant was brought on line. The final specifications for the main plant were to be ready for approval no later than 1 October of the current year.48 The assembled planners managed to accomplish this much only, it seems, because the decisions required only paper promises. When it came to making concrete decisions about which trusts would supply what raw materials, semifinished goods, or cadres of engineers, technicians, and workers, the only result was discord. Trusts and their supervisory party organs fought to secure a piece of the action, their
main weapons in the fight being statistics revealing the material and organizational shortcomings of their rivals.\textsuperscript{49} Only after several meetings stretching out over weeks did Avtostroi gain a fairly clear idea of which metallurgical, electrical, glass, and resin factories would be supplying it--in theory, at least--with critical materials and parts.\textsuperscript{50}

The June interagency meeting was the first of what would become an expanding series of conferences, all issuing a flood of directives, all designed to rectify the disorganization and delay that rapidly overtook the project. It would have been difficult enough to create an entire industry from scratch in a brief, fifteen-month period, but Vesenkha added to the confusion by approving Osinskii's recommendation, offered at the Gosplan meeting, to boost the Nizhnii-Novgorod factory's annual production target to 130,000 vehicles.\textsuperscript{51} Even without this self-assured step, however, chaos was inevitable. Transportation bottlenecks throttled the flow of supplies to the construction site, which was located in the small village of Monastyrka just outside Nizhnii-Novgorod. Although chosen because of its "convenient" location on the Oka River and proximity to a rail line, the site was in fact quite isolated: docking and rail facilities had yet to be built.\textsuperscript{52} Such practical problems paled, however, compared to the obstructionism of officials in agencies and factories that were supposed to be cooperating with Avtostroi. In the months ahead, Vesenkha, the STO, and
even the Central Committee in Moscow would issue countless decrees in an effort to impose order on the chaos. The very fact that multiple central agencies could intervene shows how vague the lines of authority were under the "plan." Equally enlightening, central intervention, no matter what the source, often came to nought as one agency's plans were thwarted at every turn by administrative agencies in Moscow and industrial enterprises in the provinces, all of which had their own interests to protect.

It would be wrong to assume that the center was blissfully unaware of this sort of chaotic bureaucratic warfare, or that it did not try to head off such wasteful squabbling. In November 1929, Vesenkha created a "super agency" for the "auto-tractor industry," the All-Union Auto-Tractor Association (VATO), which theoretically would have the power to coordinate this rapidly expanding sector of the economy. Among VATO's tasks were overseeing the construction, equipping, and start-up of automobile and tractor factories, regulating production and distribution of cars, trucks, tractors, and the innumerable components and spare parts, and allotting imported vehicles to the most deserving recipients. By "concentrating the whole of trade in automobiles and tractors, whether of domestic or foreign origin, in a single nationwide institution," Vesenkha hoped it could "eliminate duplication of effort" and ensure a "planned supply" of cars, trucks, and tractors that would accord with the projected needs of other sectors of the
economy. In the end, VATO proved to be merely one extra layer of paperwork.\textsuperscript{53}

Vesenkha took a similar tack in securing the engineering expertise necessary to design, build, and equip the factory in a timely and rational fashion: it engaged Austin & Company, an engineering firm from Cleveland, Ohio, as chief consultant.\textsuperscript{54} The contract between Austin & Co. and Glav Mashstroii, which was signed on 11 August, grew out of a proposal that the American firm’s vice president made to the machine-building trust’s director during a visit of American industrialists and financiers to Moscow organized by the American-Russian Chamber of Commerce.\textsuperscript{55} On 19 July, Bryant and his firm’s chief engineer met with A. F. Tolokontsev, chief of Glav Mashstroii and a member of Vesenkha’s presidium, at the request of the American, who was interested in "offering his firm’s services in the construction of machine-tool factories" in the USSR. Tolokontsev had something much more specific in mind, though; he and his colleagues had studied the American automotive industry closely, and they knew of the Cleveland company’s high-quality, low-cost work at a recently completed General Motors factory in Pontiac, Michigan.\textsuperscript{56} After sounding out the American’s intentions, Tolokontsev inquired about Austin & Co.’s willingness to "direct construction work" at Nizhnii-Novgorod. Bryant immediately expressed interest.\textsuperscript{57}

Negotiations between Bryant and Tolokontsev would consume a month, during which time Bryant and his chief
engineer traveled to Monastyrka to assess the suitability of the factory site. Pronouncing himself satisfied, Bryant proposed an agreement under which his company would plan the Nizhnii-Novgorod factory’s design and layout, send fourteen of its engineers to supervise construction at the site, select the necessary foreign machinery, and complete all construction and installation within fifteen months, its compensation to be a flat $250,000 fee plus 4 percent of total construction costs. Glavmashstroii considered the proposal satisfactory for the most part, but officials there wanted the Americans to send a larger contingent of engineers, and they did not think the fifteen-month schedule was realistic, even though Austin & Co. had completed the General Motors factory in eight months. Most likely, the Soviet agency’s misgivings stemmed from doubts not about the American company’s abilities but about the Soviet economy’s capacity to sustain construction: Austin & Co. was to supervise construction, but Glavmashstroii was responsible for the “timely supply of building materials and labor.” In the end, the agreement stipulated that Austin & Co. would receive a smaller percentage, but that it would earn a bonus if construction costs proved lower than its estimates. In an interesting maneuver, Glavmashstroii managed to shift the burden of supplies onto Avtostroi’s shoulders.

It was a shrewd, perceptive maneuver to avoid the inevitable responsibility for failing to meet commitments, for by early 1930, when preparatory work at the
construction site was supposed to be under way, almost nothing had been accomplished.\textsuperscript{61} The multitude of agencies that were supposed to be cooperating at Nizhnii-Novgorod, and that technically were "subordinate" to Vesenkha, were actually fighting each other for control of operations at the plant and the resources being funneled into it. The first signs of trouble surfaced in mid-January 1930, when VATO summoned representatives of the various trusts taking part in construction to Moscow to report on progress. According to the correspondent of Vesenkha’s daily paper, the meeting quickly degenerated into an "animal fight," with spokesmen for Avtostroi and Metallostroy, the trust chosen by Vesenkha to build the factory, trading insults and accusations over who was to blame for the "bureaucratic foul-ups" that had brought preparatory work to a standstill. Vesenkha had managed to get a railway spur extended to the site—no mean achievement—but wrangling between Avtostroi, Metallostroy, and other national and local agencies had kept the flow of construction materials down to one-tenth of projected daily norms.\textsuperscript{62}

A "starvation diet" such as this was nothing new for a Soviet construction site, given the desperate shortage of all manner of raw materials. This particular famine, however, had its man-made component, which offers us some insight into the freedoms that men and organizations enjoyed under a political and economic system most Western historians outside the field of Russian history still perceive as "totalitarian."\textsuperscript{63} During the course of the
meeting it became clear that Metallostroy had simply refused to comply with VATO's "categorical order" to provide Avtostroi with a variety of construction materials. After completing its preliminary designs and schedule of construction, Avtostroi had drawn up a list of the supplies it would need and submitted it to Metallostroy, presuming that the construction firm would release the materials and charge Avtostroi for the goods according to government-mandated prices. Metallostroy had other ideas. Not only did it demand higher prices than normal, it insisted that Avtostroi purchase more material than it needed. Metallostroy had no interest whatsoever in the automobile factory per se, but it did see the project as an excellent opportunity to meet in one fell swoop its entire annual production and distribution plan, which was based on an undifferentiated volume of production, not the quality or type of products shipped to certain enterprises. Without intervention from Moscow, Metallostroy would have been in an impregnable position because, like other supply and production entities, it was barraged with more orders than it could possibly fulfill. The abolition of capitalist market relations notwithstanding, Metallostroy enjoyed a seller's market, which under "socialism" allowed it to act "like a feudal prince"; as long as its own plan was fulfilled it could "treat the needs of its consumers with the arrogance of a baron." If almost five months would pass before authorities in Moscow finally straightened out the tangled lines of
authority at Nizhni N. Novgorod. The chief of Avtostroi and future director of the factory, S. S. Dybets, was in Detroit studying Ford's production methods; therefore, the complex would have no firm guiding hand until his return in mid-May. In the meantime, VATO dispatched a delegation to Nizhni N. Novgorod to try to end the administrative confusion, and in February the STO ordered Avtostroi to abandon its headquarters in Moscow and relocate to the site. Such pressure from the center helped speed up the flow of materials somewhat, but it did nothing to dispel the administrative fog. Supplies remained erratic, forcing local officials repeatedly to improvise solutions to keep construction on schedule. In late March, for example, a shortage of bricks threatened to halt all activity at the site, even though Glavmaskstroiki had known back in August 1929 that factories in the Nizhni N. Novgorod region could supply only one-half of the 60 million bricks the auto factory would need and had promised to anticipate the shortfall. To "solve" this particular problem, the party's local executive committee simply requisitioned 48 million bricks from a silicate plant going up in the oblast'.

This hand-to-mouth supply system attended every aspect of construction at what the Soviets liked to call their "Soviet Detroit." Lumber, gravel, cement, and steel beams often went straight from railroad boxcars into the plant's assembly shops, foundries, coke ovens, and blast furnaces. Quite frequently, however, they languished in
the rail yard because Avtostroi never received more than half of the locomotives and trucks needed for internal transport. As a result, Avtostroi relied on the most primitive means of transport, and even this was "catastrophically reduced by the low supply norms of oats for horses."\textsuperscript{72} Transport would remain a serious bottleneck throughout the period of construction. One observer caustically remarked that a shipment of parts took twenty-one days to get from New York to Murmansk, but over forty days to get from the Soviet port to Nizhnii-Novgorod.\textsuperscript{73} The delay is not surprising, since on 1 May 1930, when officials lay the cornerstone of the automobile factory and construction finally began, a few miles away another team of workers were only just starting work on the railway bridge over the Oka that would tie the factory to the nation's rail network.\textsuperscript{74}

Throughout the spring and summer of 1930, Vesenkha and the STO would complain ceaselessly about haphazard work at Nizhnii-Novgorod, and these complaints, combined with occasional direct intervention from Moscow, prompted frenetic activity and reports of progress. But pressure from the center often produced unexpected, unwanted results. The meetings, delegations, and criticisms of January and February, for example, so frightened the bureaucrats in Avtostroi that they resolved to begin construction on time no matter what the cost, which in this case meant laying the foundation for part of the factory even though designs had not yet arrived from America. The
master blueprint, which Austin & Co. was drawing up with the Ford Motor Company's assistance, was late because of constant changes in specifications ordered by Avtostroi, as well as the agency's frequent failure to supply the American engineering firm with information needed to complete the plans.75

Commencement of construction only altered the details of the reports emanating from Nizhni-Novgorod, not their tone. To get to the bottom of the delays, a team of reporters from Vesenkha's daily paper, Za industrializatsiia, conducted a surprise "raid" on the enterprise in late June.76 The team discovered an array of shortcomings that contributed to slow and shoddy work. Chief among them was their discovery that living quarters for the construction workers had not been completed: Soviet officials trumpeted the workers' city that Austin & Co. was to build along with the factory, but, as usual, human needs took a back seat to production targets.77 Even the targets, however, were in danger of going unmet. "If construction work at Avtostroi has yet to inspire alarm," Vesenkha reported, "this was thanks mainly to happy circumstance." The root of delays remained the squabbling between Avtostroi and Metallostroy, officials of which were more interested in "taking vengeance" upon each other and winning their "documentary skirmish" than fulfilling their obligations. Avtostroi even assigned its contingent of American advisers to work on formal complaints. According to the team from Za industrializatsiia, Avtostroi wanted to
eliminate Metallostroy from any role at the construction site and therefore launched a campaign "to discredit the enemy." To be sure, Metallostroy had "broken all records with regard to total disorder," but Avtostroy was also guilty of contributing to the chaos. Both sides were investing more energy in trying to seize control of construction than they were in furthering it.

In late August, after receiving further reports of ongoing strife, the presidium of Vesenkha saw no way out but to relieve Metallostroy of its obligations and grant Avtostroy total control of the site. The presidium then instructed the "victors" to reorganize the administrative apparatus at the construction site and "liquidate all stoppages" by 10 September. Vesenkha also convened yet another conference of administrative and technical personnel for "exchanging experience" and outlining the steps necessary to complete construction on time. To add force to the reorganization, in early September the Central Committee in Moscow gave the factory's party organizations greater authority at the site and transferred thirty-nine party, trade union, and Komsomol officials to the site on a permanent basis.

The injection of party stalwarts, coupled with a minor purge of the party apparatus at the factory and the naming of Sergo Ordzhonikidze as the new chairman of Vesenkha, brought only a momentary burst of activity. By early January 1931, Boris Agapov, one of Za industrializatsiia's main investigative reporters, was warning again of an
impending crisis that would delay production even if the plant was completed on time. Apparently, neither Avtostroi nor Stal', a trust that manufactured steel products, had made plans to provide Nizhnii-Novgorod with the specialty steels that were needed for various parts. Avtostroi had let the months slip by, "waiting for something to turn up"; Stal' had delayed its planning until September 1930, only then to discover that none of its factories could supply the steel that Avtostroi required. Both agencies, Agapov complained, had been "secretly cherishing hopes of importing steel."\(^{82}\)

The chairman of VATO, M. S. Mikhailov, tried to refute these charges by admitting that shops already completed were not yet equipped but insisting, contrary to Agapov's reports, that the biggest task remaining was to finish construction, which was "only 30 percent complete."\(^{83}\) One can hardly imagine a worse line of defense. Not surprisingly, \textit{Za industrializatsiiu} launched a full-scale assault on Mikhailov and VATO's administrative apparatus.\(^{84}\) Vesenkha, meanwhile, sent yet another commission to investigate conditions at Nizhnii-Novgorod and summoned Avtostroi's chief of construction, the secretary of the party committee at the plant, and the editor of the factory's newspaper to explain the situation. Their reports, and the commission's findings, drew an unsettling picture of serious delays in building and equipping the main shops.\(^{85}\) Much work had been accomplished, but Vesenkha was not satisfied with partial progress. It was
more interested in learning why the heating plant was
behind schedule, when the ventilation and sewage systems
would be installed, and whether VATO and Avtostroi would
ever reach agreement with a variety of factories and trusts
for the provision of ball bearings, starters, rubber,
glass, and other critical commodities.86

Another cause for alarm was Avtostroi’s failure to tap
the expertise of its contingent of American engineers and
workers. Unlike construction at the Stalingrad tractor
factory, where Americans actually directed work, at
Nizhnii-Novgorod the Americans were relegated to the
margins by Avtostroi’s officials.87 In the middle of the
caucustic press campaign and the peregrinations of various
commissions, Za industrializatsiia published the
stenographic record of a meeting held on 9 February between
Mikhailov and one Meiter, a representative of Austin &
Company’s engineers at Nizhnii-Novgorod. The American
complained that he and his colleagues were unable to render
effective advice and assistance because Avtostroi’s
management kept them in the dark about too many aspects of
construction, particularly changes to the plan. Directors
"sit the day out in their offices," rarely inspecting work
on the site because they are "suffocating under paper."
The Russian officials avoided contact with the American
engineers as a rule, but even when the Americans were able
to get through they more often than not were ignored. In
more than one instance, defective work pointed out by the
Americans was allowed to go uncorrected, its existence
either denied or "proclaimed" corrected. Finally, when the inevitable breakdowns occurred, the Russians covered them up, furiously making repairs that cost far more time and money than would have been lost had the original defect been addressed. When asked if the quality of work at Avtostroi would be acceptable at an American enterprise, Meiter exclaimed: "I don't doubt for a second. No!"  

This well-orchestrated campaign culminated in mid-February 1931, when Vesennka again reorganized the chain of command at the factory and the STO issued a detailed decree covering virtually every outstanding question of supply and future production. The STO decree gave Avtostroi until 1 April to calculate the cost of bringing the plant on line and spelled out the obligations of every enterprise and trust involved in construction. Although this was Moscow's strongest intervention to date, little came of it. A month later, *Za industrializatsiju* reported that the STO decree remained "suspended in the stifling air of bureaucracy." Avtostroi was putting its final estimate together "at a snail's pace." In early March, Vesennka brought together officials from the trusts and factories responsible for supplying the automobile plant in hopes of clarifying delivery schedules and costs, but nothing happened: everyone had excuses for why his trust, his factory, could not possibly meet Avtostroi's needs. Of course, with the STO decree in hand, one participant observed, they could "grab some people by the throat and get everything we need for production"; in other words,
they could commandeer foreign currency to import the things they should have been producing themselves.\textsuperscript{90}

In retrospect, it is amazing that Avtostroi completed even the most critical shops and assembly lines by the 1 November deadline. In a report of late March, Vesenkha’s inspection commission cited as the greatest barriers to progress the same factories, trusts, and industrial combines criticized months before.\textsuperscript{91} Decrees from the Central Committee in late April and from Vesenkha in late May intoned a familiar refrain of unfulfilled plans and obligations on the part of the same organizations. In late August, despite insistent demands from Moscow, Vesenkha’s inspectorate had to admit that all of the presidium’s decrees since March "were being fulfilled extremely unsatisfactorily."\textsuperscript{92}

Reports of ongoing transport problems and "innumerable losses" resounded in the press throughout the summer, complaints that were not addressed until late September and October.\textsuperscript{93} The mobilization of party cadres for work at Nizhnii-Novgorod played a role in this transformation, but the decisive event occurred on 10 September, when Ordzohonikidze and his deputy, Lazar Kaganovich, arrived from Moscow.\textsuperscript{94} Both men occupied positions in the highest echelon of the party-state apparatus and were close allies of Stalin. Possessed of real power and the ability to back up their demands with threats and promises, they were two of an extremely small group of men who could get results. Work at the site proceeded furiously after their departure,
and the main shops of the huge industrial enterprise were completed, for the most part, by the first of November.\textsuperscript{95} Avtostroi had only to install the remaining complement of sophisticated machinery and fill out its work force, whereupon the factory would be ready to start production.\textsuperscript{96}

Meeting these requirements, however, often depended on constant intervention from higher authorities in Moscow, particularly Vesenkha, and in some cases even this intervention was not enough to guarantee progress. As we have seen, the contract between Amtorg and Ford provided Vesenkha with drawings and specifications for all equipment related to the manufacture of Model A cars and Model AA trucks.\textsuperscript{97} Avtostroi received these designs but never used them. A Ford engineer who had been "on loan" to Avtostroi for a year reported to U.S. consular officials in Riga that the overwhelming majority of machine tools and other production machinery in the plant was of foreign origin. So too, more surprisingly, was most of the steel that would go into the factory’s vehicles: Soviet steel mills were unreliable suppliers, apparently "paying very little attention to the specifications furnished to them."\textsuperscript{98}

After paying dearly for the patents and licenses to Ford’s machines, Avtostroi, with Vesenkha’s backing, spent even more foreign currency to import machinery that Soviet industry theoretically could have produced itself. Not surprisingly, Avtostroi judged the USSR’s machine-tool industry inadequate to the task, and rather than risk the consequences of receiving poor-quality machinery—
receiving nothing at all--it opted for the expensive but reliable course of relying on foreign companies to equip the automotive plant. 99

Officials in Vesenkha generally fulminated against its subordinate agencies' tendency to look abroad before all avenues of domestic supply had been exhausted, but they usually granted Avtostroi an exemption to this policy. 100 Moscow attached a great deal of political and economic significance to the automobile factory; as one of the "projects of first importance" it had to be brought on line "no matter what the cost." Such an attitude ensured that Avtostroi would receive whatever it needed, "even if it be to the temporary disadvantage of other enterprises." 101 Yet priority status did not provide magical solutions to the problems emanating from other sectors of the Soviet economy. Factories designated as primary suppliers of the automotive plant were hit hard by the government's decision to reduce imports, jeopardizing their own production plans and the plans of those dependent upon them. 102 Moreover, ordering American machinery did not guarantee that Amtorg would act promptly, avoid dickering over prices, or make proper shipping arrangements. 103 Nor could it overcome the effects of the Soviet Union's inadequate port facilities and overburdened railways, which delayed shipments to the factory, or of the hapless bureaucrats at Nizhnii-Novgorod, who often lost track of equipment once it arrived. Officials at Avtostroi and VATO constantly complained about these problems and constantly turned to higher authorities
in Vesenkha, whose clout and funds usually sufficed to resolve them.104

On the labor front, however, the shortages were too extreme and the interests too diverse to permit desperate officials the luxury of complying with orders from Moscow. Like every other industrial enterprise of the time, then, Avtostroi had to struggle against an enervating shortage of skilled workers and fantastic rates of turnover in the labor force. Moreover, although problems on the labor front grew out of the increasing demand for workers of every description, VATO and Avtostroi followed policies that made a bad situation worse. It was bad enough that Avtostroi did not use the skills of foreign engineers properly; worse was its failure to capitalize upon the skills that Russian engineers acquired in the course of their studies in Ford’s factories. Even before it signed the contract with Ford, the Soviet government set aside generous sums to finance sending workers and engineers to Detroit, and at least 230 Avtostroi personnel studied at Ford’s factories from 1929 to 1931.105 Even though this number represented only a small fraction of the skilled workers required at Nizhnii-Novgorod, they might have made a difference in construction, design, and production had they been allowed to implement the procedures they learned. Alas, their efforts foundered on the same bureaucratic shoals that had exasperated their American counterparts, despite attempts by the Central Committee to give them a greater say in the plant’s operation.106 Moreover, many of
the Russians trained in the United States were assigned to other plants under VATO’s control. 107

The sclerotic apparatus at Avtostroi compounded its labor shortage by waiting until October 1930 to determine how many workers it would need. 108 Earlier in the summer, Avtostroi had simply estimated its requirements at 13,200. That figure then jumped to almost 16,000, fell to 14,000 by the start of the new year, and finally settled at 12,700. 109 In fact, Avtostroi’s directors simply assumed that the automobile plant’s priority status would allow them to steal from other organizations when the need arose. VATO, too, was willing to engage in this form of cannibalization, announcing in early January 1931 that it "hoped" to satisfy Avtostroi’s current needs by transferring 600 skilled workers from its AMO plant in Moscow. No one apparently thought of the impact the move would have on AMO’s production; nor did anyone bother to consult with AMO’s director, who knew that only 280 of his workers had the skills that VATO required. 110 AMO had to relinquish the workers, but once VATO began to scavenge beyond its own confines, it had to contend with hundreds of other trusts and enterprises that also needed workers and often were willing to defy Moscow’s orders to release personnel to Avtostroi.

As part of its response to the STO’s decree of late February 1931, Vesenkha ordered twelve of its subordinate organizations to transfer a total of 1,080 workers and engineers to the automotive complex. More than a month
passed before even one organization complied with the decree. The others stonewalled, sending Avtostroi’s emissaries out to the provinces to talk to the directors of their subordinate plants, who usually claimed that only their superiors in Moscow could release workers. Some plant directors were frank. One declared that "without a formal reprimand" for not complying with the decree, he "would not even talk about it." Another proclaimed that "there are no people and we will not release any" and then invited his guest to "write a report to Vesenkha." Only a few directors were willing to hand over the requisite personnel: The boss at Metallist, for example, demanded 3,710 rubles for each worker; the one at Dvigatel’ Revoliutsii generously limited his price to 600 rubles.\textsuperscript{111} The auto trust demurred, and wisely so, because these costly and sought-after workers would quickly have fled Nizhnii-Novgorod’s dreadful living conditions. In early January 1931, Agapov reported that over half of the skilled workers thus far acquired had "disappeared from the field of view" or "dispersed to other enterprises."\textsuperscript{112} In April the Central Committee had to order the Commissariat of Labor to search for any worker or engineer who had received training in "automotive affairs" in the United States but then left that sector of industry, and return them to VATO’s employ. The latter, meanwhile, received instructions to ensure that trained workers were given jobs commensurate with their training.\textsuperscript{113}
This hemorrhage of skilled labor from Avtostroi, which affected the ranks of ordinary workers equally, grew directly out of housing and living conditions that were indescribably bad.\textsuperscript{114} Although the state consciously squeezed living standards during the plan, promising a brighter future in return for current sacrifices, the level of poverty to which the Soviet people were reduced combined with the massive industrialization drive to produce a tremendous migratory flux of workers and peasants searching desperately for better conditions. Conditions at Nizhnii-Novgorod were no better than at other Soviet enterprises, according to one American engineer, despite Austin & Company’s efforts to oversee construction of a workers’ village.\textsuperscript{115} The confused lines of authority between the factory management and trade union officials, both of which had responsibility for providing minimal living standards, and between three building trusts competing for control of housing construction at the site, led to a "detestable" situation "causing excessive mobility."\textsuperscript{116} Despite Austin & Company’s work, the automotive complex’s housing plans projected the construction of housing for only two-thirds of the work force. Making matters worse, the units constructed fell far short of the number originally targeted and were in such "catastrophic condition" that workers "ran from the construction site."\textsuperscript{117}

For those who remained, work at the "Soviet Detroit" proved to be anything but a replication of the type and quality of labor found at Ford’s factories in the United
States. American engineers and workers gave mixed assessments of their Soviet counterparts that stemmed, obviously, from the success or failure of their own tasks at Nizhnii-Novgorod. C. A. Barnett, the general manager of a Cleveland foundry equipment and contracting firm, told of "an unusually capable group of workmen" who helped him install four vertical continuous core ovens at the plant's foundry. The group, Barnett learned, had worked together for years as trouble-shooters, going from factory to factory to install sophisticated Western machinery.  

More often, however, Americans complained about the difficulties of working with men and women "right off the farm" and with supervisors and foremen who "have got to be convinced that their way is wrong before they will listen to us."  

It was not that Soviet workers were inherently unable to adapt to factory life, although some Americans believed that; rather, as one American auto worker put it, they seemed to "lack initiative or any great desire to learn."  

In part this was due to material deprivation, but it had mainly to do with chaotic conditions throughout industry that made it impossible for workers or engineers to perform their jobs, without removing the consequences of failure.  

Put simply, there was no motivation to do one's job well.

The results of nation-wide economic turmoil, a bloated and inefficient factory administration, and an inadequately trained and indifferent work force quickly became evident in the poor performance of the automobile plant. Despite
more than two years of mishaps, delays, and obstruction, Avtostroi somehow achieved enough at Nizhnii-Novgorod to begin operations on 1 January 1932 and wheel out the first complement of Soviet-produced trucks. Within a few months, however, the main assembly line had to be shut down because of a lack of parts from other shops within the complex and a dearth of supplies from ancillary industries, problems that would continue to plague production well after the plant came fully back on line.\textsuperscript{122} Thereafter output steadily increased, but the facility at Nizhnii-Novgorod never lived up to Osinskii's dreams. By the end of the First Five-Year Plan the Soviet Union was producing only 23,900 vehicles a year, some 15,000 less than the defeated advocates of the "handicraft" approach had envisioned.\textsuperscript{123} Not until 1937 would the entire Soviet automotive industry produce the 130,000 units that had earlier been expected from Nizhnii-Novgorod alone.\textsuperscript{124}

* * *

The failure to achieve planned results at Stalingrad and Nizhnii-Novgorod was a direct consequence of the political decision to demand progress on every economic front at once, which in turn created an environment deadly to the rational pursuit of plans. By setting an overly ambitious industrial agenda, Moscow threw the national economy into turmoil, creating scarcities in every sector and forcing administrators and managers to fight to secure resources. Unable to meet their assigned targets, trusts and factories lied to avoid the consequences and were
protected by their superiors, spinning a web of deception upon which future targets were based. With plans increasingly removed from the realities and abilities of the economy, small wonder that waste, inefficiency, and bureaucratic arbitrariness rapidly overtook the system.

Stalingrad managed to avoid this vicious cycle at first because construction began before the Five-Year Plan came fully into effect and because American specialists had full authority at the site. By the time the tractor factory came on line, however, it was no longer immune to ills plaguing the Soviet economy. With the administration in Soviet hands, and production dependent upon Soviet supplies, the factory stalled before it ever got going. Only when one of the country’s highest political authorities personally intervened were Stalingrad’s officials able to meet the minimum requirements.

The ordeal at Nizhnii-Novgorod, however, reveals the limits of such intervention and the lack of Moscow’s control over the execution of its policies. Even after Vesenkha squelched the attempt to block automobilization and gave Avtostroi priority status, it could not force such subsidiary bodies as Metallostroy and Stal’ to obey directives that conflicted with other tasks. Nor could Vesenkha, the STO, or even the Central Committee bring individual managers to heel when their directives threatened the interests of enterprises enjoying the protection of powerful agencies in Moscow. Only through constant intervention and the reallocation of resources
directly under its control was Vesenkha able to guarantee that Avtostroi would achieve the minimum desirable results. At Stalingrad, Nizhnii-Novgorod, and throughout the national economy, improvisation replaced planning, results meant more than methods, and success, "no matter what the cost," took precedence over efficiency. The flexibility needed to meet, or appear to meet, production targets was indicative, strangely enough, of the same flexible approach to production problems that Soviet leaders admired in American businessmen. But this "creative" approach to problem solving was directed toward the wrong ends. It was not the same sort of "indomitable force which neither knows nor recognizes obstacles" that Stalin admired in Americans.¹²⁵ To the Stalin of 1924, at least, American efficiency was a critical component of the "serious, constructive work" that had taken the United States to the heights of industrial productivity. Combined with "Russian revolutionary sweep," it would vault the world’s first socialist society over its capitalist rivals. Under Soviet conditions of extreme scarcity, severe competition for resources, and arbitrary bureaucratic decision making, however, "Russian revolutionary sweep" overwhelmed American efficiency. And left unchecked, it degenerated into "wild dreaming and scheming," just as Stalin had feared.
See EZh, 5 February 1931.


The best description of the impact of such terror tactics, which the Russians referred to as "spetsedstvo" (specialist-baiting, or, literally, "specialist-eating"), is in Kravchenko, I Chose Freedom, passim.

The literature describing the plight of the Soviet "consumer" (and attempting to analyze just why the state took the course that created these conditions) is too large to cite fully. Some good works are R. W. Davies, The Soviet Economy in Turmoil, 1929-1930 (London, 1989); Carr and Davies, Foundations of a Planned Economy; William Chase, Workers, Society, and the Soviet State: Labor and Life in Moscow, 1918-1929 (Champaign, IL, 1987); and, for a case study from a slightly earlier period that is still relevant, John Hatch, "The Politics of Industrial Efficiency during NEP: The 1926 Rezhim Ekonomii Campaign in Moscow," in New Directions in Soviet History, ed. Stephen White (Cambridge, England, 1992), 113-24. Throughout the Five-Year Plan the Soviet press criticized trusts and administrators of construction sites for neglecting housing and other social services, which indicates that very little was done during the period to improve matters.

The phrase, of course, is "nationalist in form, Soviet in content." It was the murky dictum Soviet authorities gave to describe their preferred form of artistic expression, Socialist Realism.

"Detishche rabochego klassa," Pravda, 17 June 1930.

Krupnaia pobeda na sotsialisticheskoi stroike," ibid.
"Khod postroiki stalingradskogo zavoda," TPG, 6 January 1928; "Protokol zasedaniia komissii STO, obrazovannoi postanovleniem STO ot 15 iuiu po voprosu ob usilenii proizvodstva traktorov," 23 June 1928, TsGAOR SSSR, f. 374, op. 1, d. 374, l. 104.

See the report to the STO by Glavkontsesskom, "Osnovnye polozhenii po kontsessii na proizvodstvo traktorov," 23 June 1928, TsGAOR SSSR, f. 374, op. 1, d. 374, l. 105; and "Uvelichenie moshchnosti stalingradskogo traktornogo zavoda," Pravda, 29 May 1929.


See Voroshilov's remarks in Pervyi vsesoiuznyi s'ezd kolkhoznikov-udarnikov, 15-19 fevralia 1933 g.: Stenograficheskii otchet (Moscow-Leningrad, 1933), 271-73, 303.

"Uvelichenie moshchnosti stalingradskogo traktornogo zavoda," Pravda, 29 May 1929; Charles E. Sorensen (Ford Motor Co., Dearborn) to Percival Perry (director, Ford Motor Co. of the UK), 6 May 1929, Ford Archives, acc. 572, box 24, folder: "Foreign Sales (incl. USSR)."

"Na stalingradskom traktoro stroe," Pravda, 6 July 1929.

"Stalingradskii traktornyi zavod dolzhen byt' pushchen k kontsu 1929-30 g.," EZh, 12 July 1929.

"Uskorit' stroitel'stvo stalingradskogo traktornogo zavoda," Pravda, 21 July 1929.

"Traktoro stroi usilivaet tempy," EZh, 17 August 1929. See also "Amerikanskiy temp stroitel'stva traktoro stroia," Pravda, 2 August 1929. Calder was an employee of Kahn Engineering Company "on loan" as chief consulting engineer of Traktoro stroi at Stalingrad.

"Novye zadachi i plan traktoro stroenia i sel'mashstroeniia," Pravda, 7 December 1929; "Sobstvennymi silami postroem! Pochemu my otkazyvaemsa ot privlecheniia inostrannykh firm?" ibid., 25 December 1929. See also "Amerikanskaia tekhnicheskaiia pomoshc' Cheliabtraktoro stroiu: Ot s'ezd rukovoditelei stroitel'stva v SASSh," ZI, 9 January 1930.


"Na-dniakh vypuskaetsia pervyi opytnyi traktor," EZh, 31 January 1930.
"V roli amerikanskogo nabliudatelia," ZI, 4 April 1930.

"Stalingradskii traktorostroi b’et trevogu," Pravda, 11 April 1930.

"Do puska ostalos’ poltora mesiatsa," ZI, 30 April 1930.

See Stalin’s congratulatory telegram to the director of Traktorostroi, Ivanov, in Pravda, 18 June 1930; and Strutt (assistant to chief engineer, Traktorostroi), "Russkie rabochie dokazali svoiu sposobnost’ stroit’," ibid., 17 June 1930.

VATO (Vsesoiuznoe Avto-traktornoe Ob"edinenie) was created in November 1929 in an effort to bring some institutional order to the chaotic state of the automotive and tractor industries. It is discussed later in the chapter.

"Do puska ostalos’ poltora mesiatsa," ZI, 30 April 1930.


See the two-part article, a blistering attack on VATO, Stal’, and the Stalingrad tractor factory’s administration, by Osinskii, "Stalingrad i Khar’kov," Pravda, 30-31 July 1930.

Galetskii (deputy chairman, Vesenkha RSFSR) circular letter, "Vsem ob"edineniam, tekstil’nomu, gornomu direktoratam, energeticheskomu, kustarnomu otdelam," 2 September 1930, TsGANKh SSSR, f. 3429, op. 13, d. 2425, l. 1.


"Uskorit’ otgruzku oborudovaniia stalingradskomu traktornomu," ZI, 19 August 1930. See also "VATO i Amtorg dolzhny polnost’iu oborudovat’ stalingradskii zavod," Pravda, 14 August 1930.
34"Postanovlenie TsK VKP(b) ot 26 sentiabria 1930 g. 'O sostoianii partiino-massovoi raboty na stalingradskom traktornom zavode,'" Pravda, 29 September 1930. To contemporary Americans the phraseology of the decree might seem empty and bombastic, but no party member in 1930 could mistake its meaning: party members, and particularly the officials of local party organizations, would be held directly responsible for ensuring that the factory began working, quickly, and efficiently.

35K. Rustavelli, "We Do Not Spend Our Foreign Currency in Order that Foreign Specialists Should Sit Around with Folded Arms," translation of an article in ZI, 22 August 1930, enc. #3 in Sussdorff des. 7236 to Stimson, 4 September 1930, RG 59, 804.4R-Cases and Trials.


38"Prikaz VSNKh No. 268 ot 30 aprelia 1931 g.," ZI, 8 May 1931. The decree was signed by Ordzhonikidze and published under the title "Work at the Stalingrad Tractor Factory Must Be Put in Order Immediately."


41See "Fordizm i primenenie ego metodov v SSSR," TPG, 29 January 1928. Kravchenko, no friend of the Soviet system under Stalin, wrote of the abolition of uravnirovka and the institution of piecework: "Equality of income, which had been a Soviet ideal, was suddenly turned into a crime . . . releasing torrents of greed and self-seeking in officialdom" (I Chose Freedom, 77).

43For an English-language discussion of the basic points of Stalin's speech, delivered on 23 June, see Swift (Vienna) des. 355 to Stimson, 21 August 1931, RG 59, 861.50-Five Year Plan/186.

44Kravchenko, I Chose Freedom, 77.


46"Nizhegorodskii avtostroi: pervye meropriatiia po sodeistviu stroitel'stvu avtozavoda-giganta," EZh, 7 April 1929. See also Khavin, Kratkii ocherk, 123.

47"Avtomobilizatsiia SSSR," EZh, 8 June 1929. See also "Pervye 6 tys. avtomobilei tipa Forda," ibid., 16 June 1929; and "Obespechit' razvertyvание avtotraktornoi promyshlennosti," ibid., 20 July 1929.

48Representatives from Nizhnii-Novgorod, Iaroslavl', Leningrad, and Moscow lobbied to have the permanent assembly plant located in their respective cities. Glavmashstroi eventually settled on building a new assembly plant in Moscow, near the existing AMO plant. See "Organizatsiia vremennykh i postolannykh sborochnykh masterskikh," Pravda, 17 July 1929; "K stroitel'stvu sborochnykh masterskikh budet pristupleno v samoe blizhaishee vremia," EZh, 23 July 1929; and "Stroitel'stvo avtozavoda-giganta v Nizhnem-Novgorode," Pravda, 23 July 1929.

49"Avtomobilizatsiia SSSR," EZh, 9 June 1929.

50See, for example, "Razvitie avtomobilizma trebuet dopolnitel'nogo rasshireniia rezinovoii promyslennosti," Pravda, 19 June 1929. Not until November did the officials of Vesenka figure out which plants would be able to supply steel for the Nizhnii-Novgorod factory's buildings and, eventually, products. See "250.000 avtomobilei v 1932 g.," ibid., 22 November 1929.

51"Avtomobilizatsiia SSSR," EZh, 9 June 1929; ibid., 13 June 1929. Within a year the annual production target would be increased to 140,000 ("Pervomaiskii vklad v industrializatsiiu," ZI, 4 May 1930.

52See "Gde budet stroit'sia avtozavod na 100 tys. mashin?" Pravda, 16 June 1929; and "Gde budet stroit'sia avtozavod-giöant," EZh, 23 July 1929.
53See the memorandum by Vesenkha attached to NK RKI SSSR, "Spravka No. 2 Ob uporiadochenii snabzheniia strany avtomushchestvom k zasedanii STO," 16 January 1930, TsGAOR SSSR, f. 374, op. 1, d. 533, ll. 11-12. See also the report by NKPS SSSR to the STO, which formed the subject for discussion at this meeting of the STO, dated 6 December 1929, ibid., ll. 16-17.

54"Nizhegorodskii avtozavod budet stroit'sia pri uchastii amerikanskoi firmy 'Ostin i Ko'," EZh, 14 August 1929; David B. Macgowan (chargé d'affairs, Riga) to Stimson, 2 August 1929, Louis Sussdorff (chargé ad interim, Riga) to Stimson, 19 August 1929, and Coleman to Stimson, 20 August 1929, RG 59, 861.797–Austin & Company/1, /3, and /5.


56On the high regard with which the Soviets held Austin & Co.'s work, and the role this knowledge played in their decision to hire the U.S. firm, see "Amerikanskiiia firma Osting i Ko o stroitel'stve Nizhegorodskogo avtozavoda," EZh, 8 September 1929.

57"Uchast'ie amerikanskoi firmy v postroke avtozavoda," ibid., 20 July 1929.

58See Macgowan des. 6323 to Stimson, 2 August 1929, RG 59, 861.797–Austin and Company/1; and "Peregovory o zakliuchenii dogovora na postroiku avtozavoda s predstavitel'ami Osting i Ko.," EZh, 13 August 1929.


60"Nizhegorodskii avtozavod budet stroit'sia pri uchastii amerikanskoi firmy 'Ostin i Ko'," EZh, 14 August 1929; Sussdorff des. 6318 to Stimson, 19 August 1929, RG 59, 861.797–Austin and Company/3. At the meeting of the Glavmasstroii presidium when the contract was approved, Bryant was asked, "incidentally," whether his firm would be willing to review the blueprints for an assembly line to produce combines, which was to be added to the agricultural
implements factory in Rostov-na-Donu. Bryant agreed to the request, and he also agreed to have his engineers supervise construction of the shop.


62"Nedopustimaia gryznia mezhdru Avtostroem i Metallostroem," ZI, 18 January 1930. See also "V ianvare--pervaia sotnia mashina," ibid., 8 January 1930; and "Kto zhe budet snabzhat' avtozavoda?" ibid., 15 January 1930.

63It bears repeating here that recent research by a variety of Western historians has undermined the "totalitarian framework" completely. What credence the totalitarian interpretation retains is due mostly, it seems, to a broader unfamiliarity within the larger historical profession with recent literature. See my discussion in Chapter I.


65"Moskva, 14 sentiabria," ZI, 14 September 1930.


67"Stroitel'stvo avtozavoda ne obespecheno materialami," ZI, 18 January 1930.


69See "Peregovory o zakliuchenii dogovora na postroiku avtozavoda s predstaviteliami Ostin i Ko," EZh, 13 August 1929.

70"Kak idet stroitel'stvo nizhegorodskogo avtozavoda," ZI, 13 April 1930.

71The first reference to this phrase that I found in the Soviet press is in "Zdes' budet avtozavod zalozen," EZh, 31 July 1929.

72"Kak idet stroitel'stvo nizhegorodskogo avtozavoda," ZI, 13 April 1930. See also, in ibid., "Avtomobili ostanutsia bez kuzovov," 15 April 1930; "Importnyi gruz opazdyaet na mesiats," 22 April 1930; and "Po bezdorozh'iu," 2 June 1930; and Sergei N. Kornikov, Sozdanie i deiatel'nost' ob'edinennykh organov TsKK-RKI v 1923-1934 gg. (Moscow: Nauka, 1971), 351-52. The supply situation looks vaguely similar to today's highly touted "just-in-time" provisioning of parts perfected by Japanese
manufacturers; although, in the Soviet case it was neither planned nor desirable, since there was no guarantee that the supplies would arrive.

73"Nedopustimaia zaderzhka perevozok avtochastei," ZI, 11 April 1930.

74"Novye giganty: avtomobil’nyi zavod," Pravda, 4 May 1930; "Zalozhien tol’ko pervyi kamen’: vsia rabota—vpered,", ZI, 5 May 1930.

75See "Na perelome: kak idet stroitel’stvo Nizhegorodskogo avtozavoda," ZI, 13 April 1930; and "Proekt avtozavoda gotov," ibid., 13 May 1930.

76This was a favorite investigatory device of the center, which by this time understood that "formal" investigations, for which enterprise and trust directors had much time to prepare, usually produced worthless reports packed with lies, excuses, and empty promises.

77Almost every account of the Five-Year Plan refers to the dreadful living conditions suffered by ordinary workers, who occupied the bottom rung on Moscow’s list of priorities. See Kravchenko, I Chose Freedom, 79-81, for only one of many cases where horrifying descriptions of housing standards stretch the limits of imagination. See also Gelb, An American Engineer in Stalin’s Russia, 123, 232-33; individual reports of American engineers in RG 59, 861.5017-Living Conditions; and the responses by American engineers to H. H. Fisher’s questionnaire in the Russian Subject Collection, American Engineers in Russia, boxes 18 and 19, Hoover Archives.

78"Avtozavod na reshaiushchem etape," ZI, 28 June 1930.

79For these reports see "Kogda Metallostrooi izmenit tempy?" ibid., 7 August 1930; "Za stenoi molchanii," ibid., 15 August 1930; and "Nezametnye milliony," ibid., 22 August 1930.


82"Palki v kolesakh sovetskogo avtomobilia," ZI, 7 January 1931.

84"Eshche raz ob avtozavode," ibid., 7 February 1931.

85"Avtostroi perevypolnil plan osobogo kvartala," ibid., 11 February 1931. See also "Kapital'noe stroitel'stvo VATO," Avto-traktornoe proizvodstvo, 1931, no. 1:35-36.

86"Nizhegorodskii avtomobil'nyi zakonchit' v srok," ZI, 13 February 1931; "Po zavodam VATO," Avto-traktornoe proizvodstvo, 1931, no. 2:31-34. See also "Gotov' te bazu avtogradantu," ZI, 11 February 1931.


88"Razgovor po dusham: Rabotniki firmy 'Ostin' ob Avtostroe," ZI, 10 February 1931.

89"Prikaz po VSNKh SSSR No. 97," ibid., 18 February 1931; "Postanovlenie Soveta Truda i Oborony SSSR 'O nizhegorodskom avtozavode,'" ibid., 22 February 1931. See also "Avtomobili--k oktiabriu 1931 g.!!" ibid., 23 February 1931.


91"Nizhegorodskii avtozavod pustit' 1 oktiabria," ZI, 29 March 1931.

92"Polnost'yu obespechit' rabotu novykh predpriiatii avtotraktornoi promyshlennosti," ZI, 29 August 1931. See also "Postanovlenie TsK VKP(b) 'O partiinoi i professional'noi rabote i podgotovke kadrov dlia nizhegorodskogo Avtostroia,'" ibid., 24 April 1931; and "Prikaz po VSNKh SSSR No. 305," ibid., 26 May 1931. For a sampling of the events that ZI found alarming throughout the summer of 1931 see "Ne dadim nizhegorodskomu 'Fordu' zastriat' v tupike," 5 June; "Kazhdyi chas zaderzhki grozit otodvinut' srok puska," 11 July; and "V chem osnovnaia prichina provalov," 5 August.

93See, in ZI, "Stroiteli zaderzhivaiut montazh," 9 September 1931; "Opasnost' s tyula," 24 September 1931; and "Na'm bez prostojev ne oboits'!!" 27 October 1931.

94"Iz prikaza No. 2 nizhegorodskogo kraikoma VLKSM o

95"Nizhegorodskii avtozavod vystroen," ZI, 1 November 1931.

96See, for example, "Ne prevrashchaite smezhnye proizvodstva v nepryevnyulu tsep' prepliatstvii," EZh, 22 October 1931; "Bor'ba za nizhegorodskii avtogigant prodolzhaetsia," ZI, 4 November 1931; and "Avtozavod ne obespechen smezhnymi proizvodstvami," ibid., 19 November 1931.

97The Ford-Amtorg contract is attached to Ford Motor Company to Mezhlauk, 17 May 1929, Ford Archives, acc. 390, box 87, folder: "Autostroy."

98A. E. Carleton (U.S. consul, Riga) des. 33 to Stimson, enclosing memorandum of interview between Vice Consul Gufler and Nilkanth Chavre, 7 December 1921, RG 59, 861.797/31.

99On the tendency to rely on imports see, for example, "K voprosu o ratsionalizatsii importa," TPG, 14 February 1929; "Na strazhe nezavisimosti SSSR," ZI, 1 May 1930; and Ikonnikov, Sozdanie TsKK-RKI, 351-352.

100See, in addition to the articles cited in the previous note, "Mirovoi krizis i sovetskii eksport," EZh, 15 August 1930; "Iz doklada neofitsial'nogo Predstavitelia SSSR v SShA v Narodniy Komissariat Inostrannykh Del SSSR," 1 July 1931, and "Pis'mo Zamestitelia Narodnogo Komissara Inostrannykh Del SSSR v Politbiuro TsK VKP(b)," 18 September 1931, DVP 14:403-9 and 522-27; "Na putiakh k osvodobozdeniiu ot importa mashin," EZh, 15 May 1930; and "Palki v kolesakh sovetskogo avtomobila," ZI, 7 January 1931.

101Felix Cole (chargé d’affaires, Riga) to Stimson, 18 December 1931, RG 59, 861.50-Five Year Plan/215.


105 See Gorbunov (upravdelami SNK SSSR i STO), "Spisok No. 3, ob ekctov promyshlennogo stroitel’stva, ne imevshikh na mae utverzhdennych okonchatel’nykh proektov," 27 May 1929, TsGAOR SSSR, f. 374, op. 1, d. 561, l. 4; and the documents in Ford Archives, Acc. 818, box 1, folder: "Autostroy"; and Sorensen to Perry, 6 December 1929, Ford Archives, Acc. 38, box 60, folder: "Introduction, Letters of, and Visitors, (1929)."

106 See "Avtozavod rastet," Pravda, 6 January 1930; and especially "Postanovlenie TsK VKP(b) ‘O partiinoi i professional’noi rabote i podgotovke kadrof dla nizhegorodskogo Avtostroia,’” Zr, 24 April 1931.

107 "O rabote sredi inostrannых rabochikh," Zr, 26 October 1930; "Iz inostrannoii praktiki," Avto-traktornoe proizvodstvo, 1932, no. 4:26-29.

108 Or by waiting until the last moment to send specialists abroad to study techniques they needed to master in order to run certain shops and assembly lines properly. See "Upravliaushchii Nizhegorodskim Kraevym Trestom Metalloobrabatyvaushchiei Promyshlennosti (NK SNKh RSFSR) v VSNKh RSFSR," TsGANKh SSSR, f. 3429, op. 13, d. 4156, l. 57.


111 "Bez vygovora liudei ne dadim!" Zr, 24 March 1931; "Kadry na nizhegorodskom avtozavode," Avto-traktornoe proizvodstvo, 1931, no. 11:18-19. For more on this astonishing tale see, in Zr, "VATO bezrazlichno, kogo dla nego gotovit’ chuzhoi vtuz,”” 9 April 1931; "Sel’mash, VEO i VAT prodolzhaet’ sabotirovat’ zakaz na kadry dla avtogiganta,” 18 May 1931; "Parad volokitchikov i sabotazhnikov prodolzhaetsia,” 3 June 1931; and "Nizhegorodskomu avtozavodu ne gotoviat rabochikh, a on ubezhden: ‘Kak-nibud’ oboiemsia!’“ 10 August 1931.

112 "Palki v kolesakh sovetskogo avtomobilia," Zr, 7 January 1931.

113 Postanovlenie TsK VKP(b) "O partiinoi i professional’noi rabote i podgotovke kadrof dla
nizhegorodskogo Avtostroia," ibid., 24 April 1931.

114Americans who worked in the USSR during the First Five-Year Plan agreed that the tremendous turnover in labor was prompted by the search for food and better living conditions. Their reports are scattered throughout the RG 59 decimal files "861.50-Five Year Plan" and "861.5017-Living Conditions." See also the responses by U.S. engineers to a questionnaire circulated in 1932-1933 by H. H. Fisher of Stanford University, located in boxes 18 and 19 of the Russian Subject Collection, American Engineers in Russia, Hoover Institution on War, Revolution and Peace, Stanford, California.

115John Ball Osborne (U.S. consul general, Stockholm) record of conversation with Frederick A. Coleman (sales engineer, Austin & Co.) in des. 878 to Stimson, 8 August 1931, RG 59, 861.5017-Living Conditions/274.

116Translation of lead editorial in Pravda, 10 September 1932, enclosed in Cole des 795 to Stimson, 10 September 1932, RG 59, 861.797/30. See also "Stroïat po-starînke: organizovat' v Nizhnem fabrikhu stroitel'nykh detalей," ZI, 10 January 1930.

117"Budut zhilishcha—budut i liudi!" ZI, 23 August 1931. See also "Nekotorye uroki Avtostroia," ibid., 12 October 1931; "Nemnogo o bytovym usloviakh ITR Avtostroia," ibid., 17 August 1931; and Khavin, Kratkii ocherk, 129.

118C. A. Barnett (general manager, The Foundry Equipment Co.) to Peter Bogdanov (chairman, Amtorg), 16 January 1932, Gumberg Papers, box 10, folder: "January 1 to March 31, 1932."

119Henry Schram (Ford Motor Co. employee at Nizhnii- Novgorod) to Mr. Falland (Detroit), 30 June 1932, Ford Archives, acc. 390, box 87, untitled folder. See also the translation of a report of examination of Vaino Sinnko at the Office of the Central Detective Police, Helsingfors, Finland, 27 February 1933, enclosed in John L. Bouchal (U. S. consul, Helsingfors) des. 360 to Stimson, 8 March 1933, RG 59, 861.5017-Living Conditions/607.

120Loy Henderson (Riga) memo of conversation with John Karsky, enc. #1 in Robert P. Skinner des. 65 to Stimson, 8 February 1932, RG 59, 861.5017-Living Conditions/422.

121See the remarks of Hyman S. Wolfson in George F. Kennan (3d secretary, Riga) memo of conversation enclosed in Clarence B. Hewes (chargé) des. 1168 to Stimson, 17 February 1933, RG 59, 861.797/32. See also the Pravda editorial, 10 September 1932; and "V bor'be za tekhniku i poriadok," Izvestiia, 10 September 1932.
122"Raport Avtostroia TsK VKP(b)," 21, 1 January 1932; "Tekushchaia rabota," Avto-traktornoe proizvodstvo, 1932, no. 5:1; "Vsesoiuuznaia pereklichka avto-traktornykh zavodov," ibid., no. 11-12:10; Khavin, Kratkii ocherk, 221.

123Khavin, Kratkii ocherk, 165; Vasilii I. Kas’ianenko, Zavoevanie ekonomicheskoi nezavisimosti SSSR (1917-1940 gg.) (Moscow, 1972), 201; and "Rezoliutsii XVII s"ezda VKP(b) 'O vtorom piatiletnem plane razvitiia narodnogo khoziaistva SSSR (1933-1937 gg.),'" January-February 1934, Direktivy KPSS 2:397.

124Kas’ianenko, Zavoevanie ekonomicheskoi nezavisimosti, 201, puts the figure at 200,000, but this contradicts the information in "Rezoliutsii XVIII s"ezda VKP(b), ‘Tretii piatiletnii plan razvitiia narodnogo khoziaistva SSSR,’” 20 March 1939, Direktivy KPSS 2:564.

125See Chapter I, p. 3.
CHAPTER V
East Meets West? Soviet Realities and the Irrelevance of American Technique

To a historian who deals with the Soviet Union, the impact of individuals often gets lost in the tangle of acronyms and government agencies spawned by a state that spread its tentacles into every layer of society. Much the same is true for those who study the economic relations of sovereign states, for much of the story lies in a reconstruction of events in which ministries, agencies, and perhaps business organizations played the predominant and decisive roles. There is nothing inherently wrong with this sort of impersonal focus, of course, and the present narrative only lends support to the efficacy of such an approach. If anything should be clear by now, it is that the Soviet government more than any one or any thing else set the stage upon which Soviet-American economic relations would be played out, and that its decisions were primarily responsible for the way those relations developed—even if the results were to a large extent unintended.

To a surprising degree, however, the aggregate actions of hundreds of individuals had an enormous impact upon the economic relations of the United States and Soviet Russia.
American engineers, the embodiment of "American technique" in action, enjoyed a unique role in Soviet officials' plans for their country's economic development, and through their work in Soviet industry had the potential for decisively influencing the future of that country. We already have seen how difficult it was for Soviet leaders to transplant American technique along with the easily acquired American technology. The transfer of technology in and of itself could boost production significantly, but in the Soviet system of a centrally planned, politicized economy it could have no impact upon the values and work methods that constitute "technique." The agent for change would have to be found somewhere else, and Soviet leaders found such an agent in the American engineer.

What follows, then, is a fairly wide-ranging inquiry into the experiences of American engineers who participated in the First Five-Year Plan and the results of their participation. It is based on the assumption, with which some might argue, that top Soviet policymakers genuinely desired to instil American methods in their workers and engineers. As the discussion unfolds, readers will be tempted to conclude that no such desire existed: How else to account for policies that from the very beginning militated against the adaptation of American technique? But one of the advantages of focusing on the activities of American engineers is that the problems they encountered reveal a great deal not only about the effects of Soviet policies but also about the mindset that gave rise to them.
When cultures clash, the essentials of both are often laid bare.

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Soviet officials had a simple, straightforward reason for involving American engineers in their industrialization drive: they wanted to learn everything possible about American industrial technique. Previous chapters have given us the raw material to form a partial, implicit answer to the question of just what "everything" encompassed. The Soviet Union's political-economic leadership wanted to create entire branches of industry along the lines of the latest American achievements. Existing industries would be reequipped with the most modern machines. Soviet leaders hoped to create a new cadre of managers, technical specialists, and skilled workers who would possess sufficient expertise not simply to run industry in a rational, productive fashion but also to improve it, independent of foreign assistance. The goal, in short, was to "catch up with and surpass the capitalist countries," and it was a goal that could not be achieved "on our own, without using the whole of global technical experience." This was especially true on the eve of the industrialization drive, when, as Vesenkha's daily newspaper put it, "there is hardly a single branch of the huge Soviet economy that does not need fresh technical blood."1

The infusion of "fresh technical blood" could take many forms, of course, and in principle at least Soviet
authorities neglected none of them. The most visible and expensive method involved buying modern machinery and designs and hiring foreign engineers and workers. But the effort extended far beyond such direct "technology transfers." Thousands of Soviet managers and workers travelled abroad to observe first-hand production techniques in leading industrial enterprises. The hope was that these men would not only acquire important skills that could be put to use at home but also become teachers in their own right, disseminating their knowledge through example, conference reports, and published articles.²

Soviet industrial officials also made a determined effort to acquire a broad array of American technical publications, particularly periodical literature put out by industrial, trade and professional associations, to translate the most important articles, and to make these translations widely available in specially created libraries attached to trusts and individual enterprises. In April 1928, Vesenkhha ordered its Scientific-Technical Directorate to establish a central repository for foreign technical literature and reports by Soviet personnel who had travelled abroad and to disseminate abstracts of available materials, thereby becoming a sort of clearinghouse of up-to-date information.³ This particular effort would culminate in early 1930 when the All-Union Western Chamber of Commerce established a Section for Scientific and Technical Convergence with the U.S.A..⁴ The section would sponsor lecture tours by prominent American
engineers and Soviets who had studied in the United States, try to popularize American achievements through a monthly journal, Amerikanskaia tekhnika (American technique), and in turn try to interest American engineers and industrialists in the achievements of Soviet science. By 1930, roughly one year into the First Five-Year Plan, Soviet officials began to realize that construction of factories and imports of machinery were merely the first crude steps in a long and tortuous path toward the creation of a viable industrial economy. Stalin himself, in an address commemorating the thirteenth anniversary of the October Revolution, stressed that "the most serious problem connected with the establishment of heavy industry, a problem as yet unsolved, lies in the lack of engineers and specialists to perform the numerous tasks of a technical nature connected with the construction and operation of new factories." American engineers would be a critical component of the drive to liquidate this shortage.

I already have discussed some of the reasons why Soviet industrialists looked to America in particular for examples of how to organize industry. The decision boils down to a generally shared belief that America’s industrialization of the late nineteenth century most closely approximated current Soviet conditions and that, therefore, American experience had to most to offer. There was also, of course, the universal awareness of American technological superiority in many critical sectors of industrial technology, and the perhaps unexpected discovery that
Americans were far more willing to share their experience with Soviet engineers and to open their factories to Soviet officials and workers.⁷ Taken together, these perceptions motivated Soviet industrialists to seek the closest possible connections to the American engineering community, which in their minds was the cornerstone upon which the American industrial and technological prowess was built. N. N. Rubtsov spoke for many, if not most of his colleagues when he asserted that "in many fields of industry the United States has far exceeded European industry, and what seems to us to be the height of perfection is for them just the first step." One had only to visit a few U.S. factories to understand the "amazingly intensive creative work of American engineers in putting men and machinery to their most productive use."⁸ The role of American engineers in production was the key, for as Vesenkha would remind Soviet industrialists who were puzzled by the failure of the Stalingrad Tractor Factory to organize production, "the last word in American technology is useless," no better than "dead capital if it is not accompanied by new methods of work, careful organization, and well-planned production."⁹

If this faith in the powers of American engineering seems excessive, it should not surprise us to learn that Soviet officials also harbored doubts about the efficacy of too great an admiration for, let alone reliance on, American technique. Soviet publications constantly stressed that the policy of involving Americans and other
foreigners in the industrialization drive was a temporary one, a stage in a longer-term process that would culminate in the creation of a relatively self-sufficient industrial establishment. An excessive focus on American technique might lead to a situation in which Soviet engineers overlooked domestic potential. At a conference of Soviet engineers and technicians in April 1928, S. D. Shein admitted that American technical assistance was necessary, but he also warned that "we always will be buying yesterday's technology," not tomorrow's. Soviet engineers had to master American technique quickly and then use that mastery to progress independently.¹⁰

This was easier said than done, particularly when managers of trusts and enterprises were under tremendous pressure to meet production targets "no matter what." Buying foreign machinery seemed to make more sense than relying on Soviet products of dubious quality, and hiring an American engineer brought instant, proven knowledge, whereas the stream of young Soviet engineers pouring out of the burgeoning network of technicums were long on theory but devoid of practical experience. One tremendous row in early 1928 illustrates the problem that Soviet authorities would wrestle with throughout the Five-Year Plan. As part of the huge hydroelectric project on the Dnepr River, the Dneprostroi administration announced in late December 1927 that it had contracted with an American firm for the construction of a free-standing bridge across the Dnepr. Officials at Dneprostroi simply assumed that, because the
bridge would be constructed with a new type of silicon steel, Soviet industry would be unable to build it. Immediately upon learning of Dneprostroi's decision, however, the management at the Petrovskii factory in the nearby city of Dnepropetrovsk complained that its technicians had not only perfected the new process but also already had constructed bridges along the lines contemplated at Dneprostroi. The Petrovskii plant had been reequipped with foreign machinery for just such purposes; meanwhile, however, Dneprostroi blithely went abroad, spending over 4.5 million gold rubles in the process.\(^{11}\)

Dneprostroi's overeagerness to seek foreign assistance was but one example of Soviet industry's tendency to "tip its hat" to foreign expertise, or, as an exasperated editor of Pravda put it, "to fawn before everything foreign."\(^{12}\) Za industrializatsiyu, Vesenchka's daily paper, parodied this excessive admiration for everything American by "admitting" that "we are backward."

It is different in America. We are far behind American technique! In America, mechanized chickens lay cooked eggs—soft-boiled, medium, and hard-boiled—according to one's desire. In America, electrified cows give for the choosing—boiled milk, butter, sour cream, whipped cream. We bend our heads in esteem.\(^{13}\)

Gosplan would construct its Five-Year Plan in part on the assumption that Soviet industry would conduct a thoroughgoing campaign to substitute Soviet raw materials, finished goods, and human resources for foreign ones whenever possible.\(^{14}\) The Soviet government maintained a monopoly on foreign trade in part to ensure that industrialists and planners would not turn
to foreigners for unnecessary help and that Soviet industry 
would have a "defensive wall" behind which they could sell 
their products.15 All to no avail. The striking fact is 
that, despite central planning, centralized control of 
financial and material resources, a monopoly on foreign trade, 
and a rapidly growing party-state apparatus suffused with 
police power, Soviet authorities could never fully control 
their industrialists' urge to seek foreign, particularly 
American, help. Even when Soviet officials responded to U.S. 
efforts to prohibit imports of certain Soviet goods in late 
1931 by diverting their purchases to other countries, an 
American engineer reported that the typical Soviet 
industrialist still "prefers to buy in America." The 
government simply could not overcome the "profound admiration 
and respect for everything that is American."16 

Based on the amount of attention devoted to each issue, 
the government's irritation at lower officials' overreliance 
on American expertise paled in comparison to its fury at their 
wasteful use of such expertise. Throughout the Five-Year Plan 
the party and state press and the internal documents of 
economic ministries resounded with complaints about tremendous 
resources being squandered on foreign machinery that, once 
purchased, either sat unused or quickly broke down under 
improper use. But officials in every agency devoted equal 
attention to what they rightly saw as an incredible tendency 
to acquire the services of American engineers and technicians, 
only to ignore their recommendations or put them to "work" on 
tasks having nothing to do with their areas of expertise.
Although there is no concrete proof to support the conjecture, it seems to me as if many Soviet trusts took on American engineers as a matter of mere prestige, to lend their institutions a certain cachet. In an environment where even the government was constantly extolling the virtues of "American technique," if Ivanov had an American on the payroll, then Petrov wanted one, too.

The senseless use of American engineers took a variety of forms, but perhaps the most serious in terms of its harmful effects on Soviet industry was the wilful obstruction of American engineers' work and suggestions on the part of Soviet directors, engineers, and workers. The Workers' and Peasants' Inspectorate engaged in a drawn-out and generally unsuccessful battle against what it called "a lot of monstrosities" connected with the use of American engineers.\(^{17}\) A few examples will suffice. At the Bogomolstroj copper mines in the Urals, the chief Soviet engineer hired a well-known American engineer whose job would be to review operations at the mines and suggest ways to rationalize mining operations, thereby cutting costs. In late 1927, when the American was hired, production costs per ton of mined ore were 9.18 rubles; Gipromez had assigned a target cost of 6.46 rubles per ton. The American arrived in the Urals in April 1928, quickly set to work, and within a few months had submitted a long report recommending the adoption of mining methods already being put to profitable use in some copper mines in Alaska. His estimate of unit costs was 1.52 rubles per ton. "At this point," an investigative reporter for Vesenkha would later
report, "the real trouble began."\textsuperscript{18}

The "trouble" was that a Soviet engineer refused to accept the American’s recommendations, the Bogomolstroi administration threw its support behind its own engineer, and together they conspired to discredit the American and his report. First they delayed translating the report and sending it to Gipromez in Moscow. When they finally submitted the report, the translation was so bad that Gipromez had to demand the English-language report and translate it itself. Upon reading the report, officials in Moscow were so disturbed by the apparent contradictions between the American’s suggestions and the Soviet engineer’s criticisms that they summoned officials from Bogomolstroi to Moscow to explain the situation. Bogomolstroi sent a large delegation to argue its case, but they prevented the American from joining the group. In the meantime, they "retaliated" against him by telling workers to ignore the American’s orders, cutting of his telephone and mail service, reducing his allotment of food, and in general just "making the American’s life miserable." Eventually, the American gave up in disgust and left the country.

In describing the travails of this particular American, Vesenkhva never bothered to ask why Bogomolstroi saw fit to ignore the man’s advice and, in so doing, waste the precious foreign currency paid him. Anyone familiar with the industrialization drive, however, can guess at the main motivation: implementing the American’s recommendations would, in the final analysis, lead to higher production norms from
Moscow, something that practically every trust and factory wished to avoid "at all costs." This explanation would probably suffice for many other episodes as well. John E. Cook, an engineer in the employ of the Ohio Locomotive Crane Company who spent eleven months in 1930-31 supervising the erection, maintenance, and operation of locomotive cranes at Dneprostroi, Nizhnii-Novgorod, and Kuznetsk, speculated that such fears were behind the "non-cooperation on the part of foremen and subordinate engineers" regarding his suggestions to maximize the efficiency of the cranes’ operations. At Magnitogorsk, Soviet engineers spent six months trying to "discredit" a proposal by the American engineer Ellis to mechanize unloading operations at the enterprise’s rail yards with equipment already on hand. After finally admitting the logic of the American’s proposal, "no one would lift a finger to put this valuable suggestion into effect." Again, rationalizing even one small part of operations might lead the center to the conclusion that the resulting efficiency should be made the norm.

To be fair to Soviet engineers, we should realize that most of them had other reasons for ignoring American suggestions or obstructing their execution, reasons that merit a sympathetic understanding. Two American engineers who worked in the Krivoi Rog iron ore region of the Ukraine for Ruda, a subsidiary of Stal’, reported that they and their five American colleagues were "not earning their money" and were "wasting their time making plans which were not followed and reports which were not studied by the Russians." In their
opinion, the problem was not with the Soviet engineers per se, since they possessed "good theoretical information" and were "willing to work hard." Rather, the Soviet technicians "hesitate in carrying out reforms and changes which are necessary" because "they are not party men," they are "afraid of the communist bosses and regime," and they "fear that they will later be disciplined for the errors they might commit." As one of the Americans put it, "they fear anything new presented by the American engineers in spite of the fact that they seem to admire everything American." This fear was well-founded. The Americans related several cases where Soviet engineers had been punished severely when plans they carried out did not prove satisfactory.21 J. S. Ferguson, who worked at the Kuznetsk steel plant under the Freyn Engineering Company's contract, agreed that quite often a Soviet engineer would refuse to adopt his suggestions because of "the punishment that will be his in case of failure or error." The Soviets would even "put up with work they knew was wrong (the error having been pointed out to them by an American) simply because they were following the blueprint."22

Vesenkha, the STO, and even the Central Committee excoriated this sort of "opportunistic, devil-may-care" attitude toward American recommendations.23 But public fulminations against this "flight from responsibility" proved to be an ineffective antidote for the poisonous atmosphere that the Soviet government itself created during the Five-Year Plan. Several scholars have tried to make sense of the apparently contradictory impulses that bedevilled Soviet
technical specialists during the pre-World War Two plans: the center's increasing demands for responsible and productive work from Soviet engineers and its parallel policy of official mistrust, occasional baiting, and constant police supervision of the "technical intelligentsia." Kendall Bailes's work offers what is arguably the most concise and helpful explanation. As Bailes points out, during the Five-Year Plan "the political police [NKVD] was a more formidable influence than the party apparatus at the production level." The NKVD, which was probably the Soviet organization most closely under the personal control of Stalin, maintained "special sections" in every major economic agency and important industrial enterprise and had spies and informants throughout the central apparatus, factory administrations, and shop floors. Any disruption in production, any mishap, "brought the N.K.V.D. men running on the double, sniffing excitedly for the scent of 'sabotage' and 'wrecking'." Viktor Kravchenko surely spoke for thousands of his fellow Soviet engineers when he complained to the Commissar of Heavy Industry, Sergo Ordzhonikidze: "How can we try anything new, how can we follow orders that involve experiment, how can we make any progress, if every failure and every false start will be construed as wrecking?" An inquiry into the psychology of Stalinism is beyond my purposes here, but I should note my agreement in general with Bailes's conclusion that the center's purposeful policy of engendering suspicion against Soviet engineers and holding them responsible for any errors, regardless of the true cause,
grew out of top policymakers' desire to increase the technical intelligentsia's productivity and efficiency and ensure their political reliability. If anything, this policy was at least counterproductive. It may well have been irrational, too, but it would be going too far, I believe, to assert that Stalin and his closest advisers saw it as such. Whatever the reasons, though, the fact remains that during the Five-Year Plan, as Soviet engineers came under increasing pressure to produce and increasing exposure to harsh penalties for failure, they took the one promising route to salvation. Bailes called it a "flight from production," and I have referred to a "flight from responsibility." But one of Kravchenko's colleagues, perhaps, described it best of all: "They want us to rationalize and modernize and cut costs. That's all very fine . . . but as soon as we do something bold or unusual we are risking our lives, aren't we? The safest way is to do nothing."27

As the preceding discussion suggests, the desire, even need, to "do nothing" that so often explained the wilful obstruction of American engineers' work became institutionalized throughout Soviet industry during the First Five-Year Plan. It might even be true that this built-in desire to avoid taking decisions bore greater responsibility for the waste of American talents than active disregard of individual recommendations did. Such is the conclusion that emerges from reading the accounts of American engineers, at any rate. Almost to a man, American engineers deplored or ridiculed the decision-making process at every level of Soviet
industry and identified this process as the single greatest obstacle to the successful implementation of the projects they worked on and the Five-Year Plan as a whole.

American engineers' description of decision making at various enterprises leads the reader to marvel that anything was accomplished at all. Almost every American complained of "the difficulty in finding anyone who had really authoritative power" and of how "all questions were settled by conrence of several persons, even to the simplest of technical details." An American who worked in Khar'kov in 1929-30 noted that Soviet engineers and factory officials, in an effort to avoid responsibility, buried the decision-making process in the "trammels of bureaucracy." Moreover, everyone sought to "hide their various talents under a cloak of mediocrity in order that they should not loom too plainly as a person of outstanding skill."29

Authorities in the center were well aware of this massive effort to avoid responsibility and most likely understood the reasons behind it. They employed several tactics during the plan to rectify the increasing paralysis within industrial management, tinkering with various incentive plans, applying greater police pressure, and lending support to a variety of "spontaneous worker initiatives" such as the "shock-worker" movement, "socialist competition" drives within and between enterprises, and "counter-plan" agreements in which workers and managers "voluntarily" agreed to exceed the targets assigned from above.30 Their most important effort, however, and one that eventually produced few results, was to put an
end to the last vestiges of workers' control over the operation of industrial enterprises and vest greater decision-making power in the hands of factory directors. This was the party's celebrated resolution of 5 September 1929 to institute edinonachalie (unified, or one-man management) throughout Soviet industry. The resolution theoretically gave the factory director and his administrative apparatus greater authority, but in practice greater emphasis would fall on the party's justification for taking this step: "the director must answer directly for the execution of the industrial-financial plan and all production tasks." The resolution also addressed the fear of failure that was hampering production by admitting that the "application of new procedures" carried "inevitable risks" of failure and mistakes, and it called upon unidentified organizations to distinguish between "real mistakes and conscious wrecking."³¹

Once again, central authorities were making a genuine effort to overcome major shortcomings in industry, but while making factory administrations more responsible, they could not bring themselves to grant greater freedom from central dictates, nor grant directors greater authority to make decisions. And by perpetuating the belief that "wreckers" and "saboteurs" stalked Soviet industry, they did nothing to curb the power, let alone the inclination, of NKVD officers to transform honest mistakes into malicious treason. Another Central Committee decree in December 1929 tried to break the administrative logjam further by relieving directors of some of the crushing burdens of paperwork that had developed as the
number of trusts and factories expanded wholesale. Neither decree produced the desired results. In their comments on Soviet administrative procedures, the powers of factory directors, the pervasive aura of fear, and the refusal to accept personal responsibility and make decisions, American engineers said essentially the same things in 1933 that they said in 1928.

In light of all the seeming absurdities that American engineers encountered in their work in Soviet industry, one might think that they came away from their experiences with a firmly negative view not only of the Five-Year Plan but also of the entire Soviet system and the components with which they came into closest contact: industry, managers, engineers, and workers. Much to my own surprise, at least, this is not the case. To be sure, very few American engineers returned to the United States advocating the adoption of the Soviet system, at least insofar as its political aspects were concerned. But there was a wide variety of opinions among the Americans regarding the plan and the people struggling to carry it out, and on the whole these views revealed a sophisticated and generally sympathetic understanding of the peculiarities of the USSR’s situation and its prospects for success. We must keep in mind here the source of information I will rely on: American engineers hired to perform certain tasks according to principles and procedures that, to a great extent, defined their world view and formed the basis for their perceptions of themselves and others in their professions. The Americans inevitably judged Soviet industry with standards they applied
to American industry. And they appraised their Soviet colleagues according to the same criteria that they would apply to themselves.

Before exploring the views that American engineers acquired, it makes sense to establish a rough picture of the situation they found themselves in when they arrived in the Soviet Union, particularly of the living conditions which, in many cases, helped to color their overall impressions. Although there were some notable exceptions involving prominent engineers enjoying global renown in their fields, most American engineers accepted employment in the USSR under terms that did not differ much from terms they could receive at home, at least as far as pay was concerned. Keeping in mind the inevitable variations, it appears that the great majority of Americans who signed individual contracts with Amtorg in New York received about $250 per month, to be deposited in an American bank, and 300 rubles per month in the USSR, to cover food and other expenses. The enterprise or agency employing the American generally provided free or low-cost housing, and often this included a maid, a car, and access to special stores stocked with better goods and closed to the average Soviet worker. On the whole, Americans were a privileged group, even compared to their Soviet engineering colleagues, who had roughly similar arrangements—without the dollars—but who also bore responsibility and its sometimes fearsome consequences.

Nevertheless, very few American engineers considered themselves lucky or particularly advantaged. While
acknowledging the comfort and privilege they enjoyed relative to Soviet specialists, not to mention to the penury of the average Soviet worker, almost all complained of their harsh overall living conditions and practically none indicated a desire to remain in the USSR at the conclusion of their contracts. But what is interesting about these complaints is how often they were accompanied by references to the almost absolute social isolation the Americans found themselves in. Samuel Fox, who spent two years in Baku supervising the construction and initial operation of a clothing factory, reported that he had been "well treated on every side" but would not return to Baku, in part because he had "lived in an almost entirely isolated atmosphere."36 Americans who worked at some of the larger industrialization projects, such as the Stalingrad Tractor Factory, could at least enjoy the company of large contingents of American and other foreign engineers, but even these men lived in self-contained communities cut off from Soviet society.37

This isolation, imposed by most Americans' unfamiliarity with the Russian language and most Soviets' fears of "contact with alien class elements,"38 probably would have been tolerable, however, had the Americans been allowed to do the work they were being paid for. Gustaf Johnson, who went to Krasnodar in early 1930 to oversee the initial use of steam shovels and grading machinery purchased from the Bucyrus Erie Company of Milwaukee, spent ten months dealing with "isolation, hardship, and conflict," which he said would not have been too difficult to bear had he not also been "about
fifty percent efficient" because of "obstruction."
Witkin arrived in Moscow in 1932 brimming with ideas on how to
help build the ideal socialist society, but left two years
later embittered by his "grim struggle against the stifling
bureaucracy," which reduced his and other foreign engineers'
"great potential contributions to tragic collections of
vanished hopes."\(^{40}\)

Not surprisingly, central authorities kept informed of the
general situation regarding American and other foreign
engineers and tried to intervene to correct the worst abuses.
In late 1929, Kuibyshev used a plenary session of Vesenkha's
presidium to denounce the "unfriendly attitudes" and
"contempt" that many Soviet enterprises showed for their
foreign engineers. He singled out Dneprstroi for
particularly harsh criticism because of its "contemptuous
attitude" toward and "rejection of the assistance" of the
distinguished American engineer MacDonald.\(^{41}\) A mild press
campaign designed to highlight and eliminate the "outrageous"
treatment of foreign engineers ensued, but it accomplished
nothing. In a circular letter to "all enterprises, trusts,
and local organs" distributed in March 1930, the Russian
Federation Vesenkha reiterated the standard complaints about
the "unsatisfactory attention" given to foreign engineers’
suggestions and ordered the standard remedies.\(^{42}\) Again to no
avail. Indeed, in late September the Foreign Relations
Department of Vesenkha RSFSR issued another circular in which
it complained that its subordinate agencies for the most part
had failed even to respond to the earlier circular as
ordered.43 Since Moscow had trouble influencing the day-to-day production activities of its far-flung industrial empire, it comes as no surprise that its directives on such problems of less immediate import could safely be ignored.

Soviet engineers, of course, had to contend with the same "stifling bureaucracy" that infuriated the Americans, and their ability to achieve significant results in spite of being hobbled by rules, committees, and police supervision evoked widespread admiration from the American engineers. Several Americans expressed doubt or worse about the abilities of Soviet engineers. J. T. McLellan worked at the Krasnyi Putilovets plant in Leningrad, where he supervised for a time the tractor producing shop. After relating how production fell from seventy-five to five tractors daily when Soviet engineers replaced their American counterparts, McLellan asserted that "the Russians lack ability as engineers" and would be "entirely dependent upon foreign engineers, mostly Americans, in the mechanical development of their five year plan."44 But McLellan was an exception to the rule.

More typical were the comments of such men as Solomon Trone, who since 1927 had been dividing his time equally between a GE plant near New York City and the Dneprostroi complex that GE was so heavily involved in. Trone did not hesitate to lay bare the many problems, inevitable and self-inflicted, that authorities at Dneprostroi had to deal with. But he also had fulsome praise for his Soviet engineering colleagues, who he believed had "advanced their ability so greatly that the necessity for outside technical assistance
has very materially decreased." The American had no doubt that the Soviets would continue to meet a variety of setbacks in their effort to industrialize. Still, given their starting-point, he could only be impressed: four of the nine generators at work in the Dneprostroi dam were built in Soviet factories, an "astonishing accomplishment" for a country that only four years earlier had no electrical manufacturing industry to speak of.45 William Schipper, a GE engineer working in the U.S. company’s Moscow bureau, found his Soviet engineering comrades to be a "most impressive" group with a sophisticated knowledge of the latest achievements of American and German technique and the talent necessary to use such knowledge.46

Another common feature of the Americans’ impressions of their Soviet colleagues was the distinction almost all made between the older Russian specialists, who had been trained before the October Revolution, and the new cadre of "Red engineers" which began to flood out of the new technicums at this time. The Americans divided sharply in their evaluations of the new crop of young Soviet specialists. The only common point in their remarks was the obvious one, given the speed with which they were churned out of the schools, that their generally good theoretical grounding was more than offset by a "complete lack of practical experience."47 In general the Americans admired the enthusiasm with which the young Soviet engineers approached their jobs. Such ardor often led to intransigence, however, and the younger engineers were the ones who "were most forceful in thrusting their opinions
forward" and initiating "half-baked plans" over American objections.48

The only complaint about the old, "bourgeois" specialists that seemed to surface in most reports by Americans was that they were "too theoretical," a comment often linked to an exasperated recollection that these old-school engineers were "prone to long arguments and discussions" over "small and petty" theoretical details.49 While some American engineers believed that the older Russian specialists "resented the different treatment received by the foreign specialists" and "felt that it was an attack on them to have Americans brought in," few encountered any personal animus and most respected the older specialists' attempts to work in difficult circumstances.50 E. H. Collister, a consulting engineer who from May 1929 to May 1932 visited practically all refurbished and newly constructed Soviet steel mills, spoke in awe of the "engineers of the old school" out in the field, who in spite of their many failings . . . are to be commended for their accomplishments under the most adverse conditions, with the poorest quality of labor imaginable--90 percent of whom are ignorant peasants who have never seen a tool beyond a hammer and a saw and who take no interest in their work anyway--without modern erecting equipment and under the most adverse living conditions have built plants that are now producing coke, pig iron and steel.51

This generally sympathetic assessment of the older Soviet engineers' ability is reflected in the comments of an outstanding American engineer who spent over five years closely involved in the reconstruction of the Soviet mining industry, Charles E. Stuart. Stuart was no blind admirer willing to whitewash Soviet reality in order to maintain his
contract with Moscow. The report that he submitted to Vesenkha after four years of work in Soviet mining districts is devoted almost entirely to singling out grave defects within the industry and proposing far-reaching reforms to rectify the shortcomings.\footnote{52} In one of the more interesting passages of the report, Stuart concluded that the "mental capacity, grasp, and theoretical training" of Soviet engineers was unequaled even in the United States, but the Soviet engineer's "success measured in terms of the practical application of this knowledge" was woefully lacking. In Stuart's opinion, if Moscow's objective in bringing American engineers to the USSR was "solely to describe American engineering practice, then a lot of time and money has been completely wasted."\footnote{53} Books could relate that information much more efficiently and cheaply. Soviet officials had to figure out some way to get the most out of American engineers, and to Stuart's way of thinking this could be accomplished only by making Soviet engineers work closely with their American colleagues in the actual "handling of men and machinery, and in the building of machinery" both on site and underground. As long as Soviet engineers lacked practical experience, they would not be able to make practical plans. As long as they avoided working with men and machines, "mechanization" to them would be nothing more than the senseless accumulation of machinery, not "machines integrated into a well-conceived plan which coordinates the work of men and machines."\footnote{54}
Some two years later, in January 1933, when speaking before "The Thursday Club" in New York City, Stuart reviewed the thrust of his firm's extensive critique and reaffirmed his belief in the veracity of the report's conclusions. But after describing some of the criticisms he had levelled at Soviet industry in general and Soviet engineers in particular, he moderated his remarks with a plea that his audience remember the peculiar circumstances of Russia's industrialization. "They are changing their psychology from that of an agricultural people," he noted, "to that of an industrially conscious people." Although their progress was slow, "the tempo of their effort to get results is tremendous," especially that of the engineers, who "hardly know the meaning of rest." To Stuart, the Soviet engineers' achievements were especially remarkable because "they had to learn from the ground up; more especially, to unlearn from the roof down." Although the road might be long and hard, Stuart was convinced that the USSR would eventually succeed in winning a measure of prosperity because its industrialists and technicians were "the most self-critical people in the world," who also "welcome criticism from competent outsiders and use their best endeavors to profit by it."55

The "self-criticism" campaign was often used as a weapon in the debilitating search for "wreckers" and too frequently became a vehicle for personal vendettas. In another sense, however, the center's constant demand for "criticism and self-criticism" served an important function in the USSR's heavily bureaucratized and centrally directed economy. Authority in
the Soviet economy was atomized among innumerable committees and spread so diffusely as to render no single individual responsible for particular decisions. Responsibility, meanwhile, tended to go with the position, rather than with an individual having the authority to make and enforce a decision. In a vicious circle such as this, where the lack of identifiable authority tended to render the fixing of responsibility an arbitrary exercise, the pressure from above and below to critically examine every decision before, during, and after it was taken often proved to be the only effective means for individuals and collectives to assess their performance.

Stuart had good reason to admire the self-criticism that characterized Soviet industry during the Five-Year Plan, but like the vast majority of his countrymen he was judging the phenomenon according to the "practical" values that were peculiar to his own social and professional class. He and the vast majority of American engineers interpreted the self-criticism and enormous capacity for work of Soviet engineers as a manifestation of the values that American specialist considered integral to their professional status. None of the them realized that, in the Soviet context, they were the unfortunate but inevitable consequence of the very administrative practices that American engineers universally deplored.

In fact, the entire collective experience of American engineers in the Soviet Union suggests that neither side really understood the other. American engineers managed to
work in a reasonably productive manner and attain some significant results. But since they were accustomed to basing decisions on strictly economic criteria, American engineers could not fathom an economy where political considerations took precedence and could not understand why their work was rejected or frustrated at every turn. The Soviet trusts and factories that so eagerly recruited American engineers, meanwhile, had no appreciation of the socioeconomic system that made "American technique" possible and could not understand why their own engineers failed to emulate that technique. Mutual fascination could not overcome mutual incomprehension. American technology found a ready home in Soviet industry, but American technique never had a chance.
"Ispol'zovanie inostrannogo tekhnicheskogo opyta," TPG, 28 January 1928.

"Formy zaimstvovaniia inostrannogo tekhnicheskogo opyta," ibid., 20 March 1928.

"Poleznoe nachinanie," ibid., 28 July 1928.


Ibid.; Kopelianskii (deputy director, Scientific-Technical Committee) and Osipovich (chief engineer, STC), circular letter, "Vsem direktoratam i otdelam," 4 June 1930, TsGANKh SSSR, f. 3429, op. 13, d. 2415, l. 164.

"God velikogo pereloma," Pravda, 7 November 1929. English-language excerpts of Stalin's address can be found in Coleman des 6578 to Stimson, 22 November 1929, RG 59, Confidential Post Records, Russia and the Soviet Union, part 2, section B [800R], reel 20.

On this last point see, for example, "Chemu uchit inostrannyi tekhnicheskii opyt" and "Chemu uchit amerikanskaia tekhnika," both in Ezh, 18 December 1928.

"Uspekhi liteinogo dela v Amerike," ibid., 27 January 1929.

See the lead editorial in ZI, 5 May 1931.

Schein, "O zadachakh industrial'no-promyshlennoi sektii," Biulleten' VARNITSO, no 2, Stenograficheskii otchet 1-i Vsesoiuznoi Konferentsii VARNITSO, 23-26 aprelia 1928g. (Moscow, 1928), 95.

"Za sobstvennoe proizvodstvo, za nezavisimost' ot kapitalisticheskogo mira," Pravda, 1 January 1928.

"Likvidiruem nashu tekhniko-ekonomicheskuiu otstalost'," ibid., 11 January 1929.

"Bezuspeshnyi shantaz," ZI, 23 May 1931.

"Gosplan SSSR o piatiletnem plane razvitii promyshlennosti," ibid., 3 January 1929; S. A. Fediukin, Sovetskaia vlast' i burzhuaaznye spetsialisty (Moscow, 1965), 200-203.

See the letter by Foreign Trade Commissar Anastas Mikojan, "So vsei energiei--za osdorovlenie importa!" Ezh, 25 March 1930.

Stewart McMillan (U.S. consulate, Warsaw) memo of conversation with American engineer, enclosed in Huddle
des. 880 to Stimson, 31 August 1931, RG 59, 861.5017-Living Conditions/324. See also Promeksport memo to Vesenkha, 1 June 1931, TsGANKh SSSR, f. 3429, op. 13, d. 2400, l. 16; and V. V. Segal' (chief engineer, Supply and Foreign Policy Section, Vesenkha RSFSR), "Ob obsledovanii ispol'zovaniia importnogo oborudovaniia na 4-kh predpriiatiiakh Nizhegorodskoi promyshlennosti," 28 August 1931, ibid., d. 2430, ll. 19-24.


19Coleman des. 7623 to Stimson, 10 April 1931, RG 59, 861.5017-Living Conditions/240.

20"Inostrannye spetsialisty ispol'zuiutsia slabo," EZh, 20 July 1931.


22"Statement of J. S. Ferguson covering personal experiences in Russia over a period of eighteen months," 30 April 1933, Hoover Archives, Russian Subject Collection, American Engineers in Russia, box 20.

23"Zolotaia valiuta uplyvaet bez tolu," ZI, 17 February 1931. See also "Tekhnicheskoe rukovodstvo promyshlennosti," Pravda, 24 May 1929; and "Inostrannyi opyt--v ugol'nui promyshlennost'," EZh, 18 September 1932, for just a few examples.

24Bailes, Technology and Society under Lenin and Stalin, 328. The following discussion, except where specifically indicated, relies on this section of Bailes's book.


26Would any historian of U.S. foreign policy assert that LBJ and Richard Nixon knew that their war-fighting policies in Vietnam were irrational, cruel, contradictory, and so on?

27On Bailes' discussion of the "flight from production" see Technology and Society under Lenin and Stalin, 297-336. For the quote see Kravchenko, I Chose Freedom, 78.
28L. D. Anderson answers to questionnaire from H. H. Fisher (Stanford University), 1933, Hoover Archives, Russian Subject Collection, American Engineers in Russia, box 19. Anderson worked for an unidentified "consulting engineering organization."

29H. P. Hebly answers to Fisher questionnaire, 1933, ibid.

30Krivchenko, I Chose Freedom, 187-205, gives the best description of how these various campaigns played out. With a few exceptions, American engineers reported that these campaigns usually disrupted production, causing a brief spurt in output followed by a deeper plunge.

31For the text of the Central Committee’s decree on edinonachali see "Postanovlenie TsK VKP(b) ‘O merakh po uporiadochenii upravleniia proizvodstvom i ustanovleniium edinonachaliia," 5 September 1929, Direktivy KPSS 2:120-26.

32"Postanovlenie TsK VKP(b) ‘O reorganizatsii upravleniia promyshlennost’iu," ibid., 126-33.

33I have in mind such men as John Calder, Hugh Cooper, Walter Polakov, Charles Stuart, Zara Witkin, and a few others whose reputations as outstanding engineers reached beyond their particular fields of expertise and who therefore could command much better pay, housing, and working conditions than the "average" American engineer in Soviet employ.

34See, for example, Geist memo of conversation with Walter Kelly enclosed in Messersmith des. 168 to Stimson, 26 February 1931, Kennan memo of conversation with Arthur Kozloff enclosed in Messersmith des. 222 to Stimson, 28 March 1931, Leon Dominion (U.S. consulate, Stuttgart) des. 350 to Stimson, 16 May 1931, Osborne des. 887 to Stimson, 22 June 1931, and Bernard Gufler (U.S. vice-consul, Riga) memo of conversation with T. P. Collins enclosed in A. E. Carleton (consul) des. 135 to Cordell Hull (U.S. secretary of state), 12 May 1933, RG 59, 861.5017-Living Conditions/224, 239, 254, 280, 654; and James H. Watt address before the Chicago Bar Association, October 1932, Hoover Presidential Papers, box 994, folder: "Countries--Russia, Correspondence, 1932 Sept-Dec and undated." The salaries mentioned in these reports range from $300 to $150 per month. In general, contracts provided for a lump monthly sum, with 75 percent to be paid in dollars and deposited in an American bank, and the remainder to be paid in rubles directly to the engineer at his place of work.

35See, for example, Hurley des. 214 to Stimson, 28 November 1930, RG 59, 861.5017-Living Conditions/200; Albert M. Creighton to Robert F. Kelley, 29 July 1931, and James Somerville (trade commissioner, London), "Russian"

36Wilkinson unnumbered despatch to Stimson, 26 March 1930, RG 59, 861.5017-Living Conditions/144.

37See, for example, the reports in Geist memo of conversation with Smith and Grieves enclosed in Messersmith des. 222 to Stimson, 31 March 1931, and Osborne memo of conversation with Erik Hallden enclosed in des. 887 to Stimson, 22 June 1931, RG 59, 861.5017-Living Conditions/239, 280. For a picture of the American community at Kuznetsk, where fifty-two American engineers worked under the Freyn contract, see the stenographic record of a conversation with Carl A. Fox, enc. #2 in Ernest L. Harris (U.S. consul general, Warsaw) des. 755 to Stimson, 3 December 1931, and Madame confidential memorandum of conversation enclosed in Huddle des. 4385 to Stimson, 3 February 1932, ibid., 389, 434. See also Kravchenko, I Chose Freedom, 184-85.

38The phrase is from Kravchenko's own expressed fears (I Chose Freedom, 184), but similar sentiments are scattered throughout the RG 59 and Hoover Archives files containing American engineers' reports.


40Withkin, An American Engineer in Stalin's Russia, 315, 312.

41Coleman, translation of article in TPG, 13 October 1929, enclosed in des. 6518 to Stimson, 28 October 1929, RG 59, Confidential Post Records, Russia and the Soviet Union, part 2, section B [850R], reel 23.

42Egorov (Presidium of Vesenkha RSFSR) circular letter, "Vsem ob"edineniiam, trestam i mestnym organam VSNKh RSFSR," TsGANKh SSSR, f. 3429, op. 13, d. 2484, l. 2.

43INO VSNKh RSFSR circular letter "Rukovoditeliam ob"edinenii VSNKh RSFSR," 19 September 1930, ibid., l. 73.

44Brodie des. 368 to Stimson, 11 May 1931, RG 59, 861.50-Five Year Plan/142.

45Gufler memo of conversation with Solomon Trone enclosed in Carleton des. 96 to Stimson, 3 March 1933, RG 59, 861.5017-Living Conditions/616.

46Cole des. 58 to Stimson, 18 February 1932, ibid., 428.
Gordon Fox answers to H. H. Fisher questionnaire, 26 September 1933, Hoover Archives, Russian Subject Collection, American Engineers in Russia, box 18.

W. S. Orr, 3 November 1933, and Arthur G. McKee, 19 December 1933, answers to Fisher questionnaire, ibid., box 19.

William C. Aitkenhead and L. D. Anderson answers to Fisher questionnaire, 1933, ibid., box 18.

Answers to Fisher questionnaire by Leon M. Banks and Milo Krejci, 1933, ibid., box 18, 19.

Collister answers to Fisher questionnaire, 1933, ibid.


Ibid., section 4, pp. 2-3.

Ibid., p. 6.

Charles E. Stuart, "Industry in Russia and the United States," address before The Thursday Club, New York, New York, ibid., box 2, folder: "II-17-R."
CHAPTER VI
Forced Labor, Forced Exports,
and the Demise of Soviet-American Trade

Nineteen thirty-three usually stands out in histories of Soviet-American relations as a turning-point, the year in which President Franklin D. Roosevelt cut through the inertia of U.S. policy and established diplomatic relations with the USSR. Without belittling the significance of that achievement, however, I will argue here that 1931 witnessed a turning point of much more practical significance for both countries—the demise of a vigorous trading relationship that had been expanding for almost a decade. There is nothing surprising in the normal ebb and flow of trade between two countries, of course, but the mystery here is that the rapid increases in Soviet-American trade of 1928, 1929, and 1930 showed every sign of continuing. Even more surprising at first glance is that Soviet leaders, who made the decision to end the affair, so to speak, manifestly would have preferred not to do so. By 1931 these officials were finally realizing that American technology could not conjure up American technique; indeed, some were beginning to suspect that the wholesale introduction of new technology was responsible for
declining productivity and worsening attitudes toward work.¹

Such revelations did not cause officialdom to withdraw its enthusiasm for obtaining the latest achievements of American industrial technology. Nor did powerful segments of the American business community and sympathetic officials in the Hoover Administration wish to see trade with the Soviets reduced. As 1931 opened, the American economy had collapsed and America's foreign markets were being sealed up behind protectionist walls. But American businessmen could bask in one ray of light that helped, at least in a small way, to lift the gloom: the expanding trade relationship with the Soviet Union. "Booming" is more apt, for total turnover had grown from $88 million in 1928 to $140 million in 1930, and more than two-thirds of both totals represented American exports to the USSR.² True, in 1929 trade with the Soviets accounted for only 2 percent of total U.S. foreign trade, but while American exports were shrinking in 1930, Soviet purchases of American equipment were growing, and there was every reason to expect that the trend would continue for some time to come.³

Suddenly, for reasons that still seem hard to grasp today, the rising vector of Soviet-American trade swung sharply downward in late 1931, forced in that direction by Soviet officials responding to an American political controversy over which they had little or no control. That controversy centered on a raucous campaign against Soviet
imports, which itself grew out of a minor debate over tariffs on lumber. What had been an isolated dispute in 1929 within one small sector of the American economy ballooned then into a bitter struggle, pitting private businesses and associations and their allies in Congress and the administration against each other in a fight over whether Soviet-American trade would continue to exist at all. As the battle raged, American policy zigged and zagged, jeopardizing the certainty that both Soviet planners and American businessmen cherished and undermining the confidence of Soviet officials in the reliability of America as a trading partner. The champions of Soviet-American trade ultimately won their battle but lost the war. Outraged at the controversy and unwilling to watch as their products and people were subjected to discriminatory treatment, Soviet officials decided to withdraw from the American market. By 1932, the aura of amerikanizm had been officially dispelled, the welcome-mat for American products, pulled. A trade relationship that had benefitted both countries, and which only twelve months earlier seemed destined to grow, came to an abrupt and decisive end.

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The controversy began quietly enough in March 1929, when R. W. Condon, chairman of an association of loggers in the Pacific Northwest, argued before the House Ways and Means Committee that imports of softwood and shingles should be taken off the free list and assessed a duty of $3.00 per thousand feet. Condon's group, the Lumber
Industry Tariff Committee, was targeting softwood imports from Canada, where the alleged widespread use of cheaper "Oriental" labor, along with lower transportation costs, permitted loggers to undersell their American competitors. For our purposes, though, the salient remarks came near the end of Condon’s brief, when he pointed to a danger barely visible on the horizon but far more frightening to loggers in the Pacific Northwest and the South: imports of Soviet softwood. Only 20 million board-feet of Soviet lumber had been imported in 1928, compared to the 1.3 billion board-feet of softwood lumber imported from Canada in the same year. But what worried Condon was the potential growth of Soviet softwood exports. "Russian timber stands are among the finest in the world," he pointed out, "and nationalized Russian labor receives a total of 40 cents per day as wages" compared to the "$4.00 to $10.00" that American lumbermen were paid. Condon admitted that comparisons of American and Soviet wages and costs were "valueless" but still charged that the Soviets had sold their lumber on U.S. markets far below cost. Worse, "lumbering import circles" whispered of contracts to import "several hundred million feet" of Soviet lumber during 1929. The American lumber industry, he warned, could not possibly compete with this "Russian menace."
For other sectors of the American lumber industry, however, Condon’s statements represented the real menace. Logging interests that did not compete with Russian spruce and manufacturers of wood products took exception both to the proposed tariff and the characterization of Russia as a real or potential unfair competitor. A. W. Cooper of the Western Pine Manufacturers’ Association ridiculed Condon’s claim that Canadian imports had cost the states of Washington and Oregon over $800 million in lost wages and sales. Furthermore, he argued, Condon neglected to assess the impact of a tariff upon the 70 percent of mills in those states which had to buy all their raw materials and were at the mercy of logging interests. More to the point, Cooper insisted that Condon’s "Russian menace" was merely "another bugbear" designed to "camouflage the unjustified effort" to slap a tariff on Canadian softwood. Aside from the fact that Soviet lumber was processed to European specifications and therefore unsuitable for most American manufacturers, lumber imports from the USSR were but a tiny portion of total U.S. lumber imports and an insignificant fraction of the 34 billion feet of lumber annually produced by U.S. companies.6

As far as a potential avalanche of Soviet lumber imports was concerned, that prospect was refuted by Saul Bron, chairman of Amtorg, and A. C. Dutton, president of the New England company that acted as sole agent for distributing imports of Soviet lumber around the United States. Dutton pointed out that his company had agreed to
receive 45 million feet of Russian lumber in 1929 and 60 million in 1930, with a proviso that the Russians could vary those quantities by not more than 15 percent each year. Moreover, the contract with Amtorg stipulated that his company would handle 75 percent of all Russian lumber shipments to the United States. These figures alone refuted allegations that "several hundred million feet" of Russian lumber were about to crash down upon the American market. Dutton believed that the Russians, "needing money as badly as they do, would be very glad" to sell much more in America, but "physical and other conditions" made any increase "impossible." To Dutton, the 15-percent leeway built into his contract indicated the maximum amount of additional lumber the Russians thought they might be able to sell abroad.

Bron also rejected Condon's assertions, although he was careful to admit his country's interest in developing an American market for its timber products. The Amtorg director noted that Russian exports of lumber were still well below prewar totals, and that the annual increases in shipments abroad could easily be absorbed by its traditional markets in Britain and continental Europe. The USSR did want to cultivate a "limited market" in America for a "modest quantity" of its lumber, but mainly to put a dent in its considerable trade deficit with the United States, which in 1928 was roughly $80 million. While not directly addressing the charges of dumping, Bron implicitly denied them by noting that his government wanted to
cultivate a U.S. market because its lumber got "a better net return and better prices" than it did in Europe. This lent some weight to Cooper's belief that Soviet lumber shipments to the U.S. were in part a "tactical scheme" to get better terms from the USSR's European customers.

The Ways and Means Committee set aside consideration of the tariff bill, and for a time the issue of Soviet lumber imports was put to rest. Indeed, the matter might never have been resurrected again had it not been for the remarkable efforts of the American consul in Helsingfors, James R. Wilkinson. On 20 June, Wilkinson cabled Washington about a conversation he had with Baron J. F. Wrede, head of the Finnish Lumber Manufacturers' American Export Association. Baron Wrede had called at the American Consulate to discuss Finnish efforts to increase exports of lumber to the United States. That effort was bound to fail, he explained, because the Soviet government was using "what amounts to slave labor" to cut down its forests and ship its wood. Finland needed to reduce its "unhealthy" trade deficit with America, and increasing lumber exports seemed to be "the only hope" for doing so. But few Finnish exporters were willing to expend the necessary effort when they could be "ruined at the whim of a Government producing lumber and selling it abroad on an uneconomic basis."
Wilkinson’s cable seemed routine at the time, and the consul in fact would not refer to the matter for another five months. But his visitor’s casual reference that day in June to "slave labor" became the focal point of a prolonged and bitter struggle over whether Soviet lumber should be allowed into the United States. That struggle would leap well beyond the confines of the lumber industry, moreover, once it became clear that an embargo would have ramifications upon many other sectors of the American economy. What had been a minor internecine quarrel among loggers and lumber processors over tariffs then attracted the interest of outsiders, nationwide private associations that took up the banners of the two original opposing sides in order to further or protect their own interests. As that struggle played out in the halls of Congress and executive departments, it first surprised and then infuriated the Soviet government. And it ultimately provoked Moscow into striking back by curtailing its purchases in the United States, purchases that dwarfed the sales of all Soviet goods on the American market.

The embargo campaign commenced in November 1929, when a group of Soviet prisoners escaped from penal camps in the Soviet Far North and crossed the border into Finland. Their stories of penal servitude in the White Sea forests received much attention in the Finnish press, excerpts of which the American commercial attaché in Helsingfors, Osborne Watson, translated and sent to Washington. The attaché believed that the escapees told a convincing story,
but regardless of their veracity he reasoned that the newspaper accounts provided sufficient basis for an investigation that ultimately could be used to prohibit imports of Soviet lumber into the United States.\textsuperscript{12} Perhaps more importantly, the story caught the attention of Consul Wilkinson, who spent much of the ensuing year pursuing the matter and inundating the State Department with information on labor conditions in the Soviet Far North. Starting in late November, Wilkinson gathered affidavits from Russian ex-prisoners about their forced labor in Soviet lumber camps, interviewed a variety of seafaring merchantmen who plied the waters between the ports of Europe and the Soviet Far North, and met regularly with officers of the Finnish police, who were only too happy to provide the American with evidence of Soviet convict labor.\textsuperscript{13} Wilkinson even traveled to London in late December to seek advice from the U.S. customs attaché there on how to secure "evidence in proper form" that would permit American customs officials to ban the importation of Soviet lumber, which he claimed was "produced entirely by convict labor."\textsuperscript{14}

Word of the escaped Soviet prisoners also spread quickly in the United States, touching off a new struggle in which competing groups in the lumber industry and their various sympathizers in Congress and the administration fought over how to respond, if at all, to the growing evidence that imported Soviet lumber was a product of forced and convict labor.\textsuperscript{15} Within the American lumber industry itself, attitudes toward an embargo on imports of
Soviet lumber depended upon a particular company's or association's function and geographic location: western harvesters almost unanimously wanted an embargo; eastern loggers generally were opposed, mainly because they did not feel direct competition from the Russian spruce that comprised most Soviet exports. Processors and manufacturers of wood products, however, vehemently objected to any action against Soviet lumber--understandable, given their desire to secure the best product at the lowest price. Perhaps not surprisingly, these positions mirrored the fault lines within the U.S. lumber industry over the ongoing question of placing tariffs on the imports of softwood lumber.  

The fault lines within the administration were much less clear. Any decision on whether imported goods violated American laws and were therefore subject to exclusion rested with the Bureau of Customs, an arm of the Treasury Department. But the Treasury had no way of investigating conditions in Soviet forests, so it had to rely upon information gathered by representatives of the State and Commerce departments. And the men from these departments accredited to Finland took up their duties with zeal. By mid-January 1930 a number of dispatches had travelled between the Commerce Department's Bureau of Foreign and Domestic Commerce and its attaché in Helsingfors, Watson, regarding the "delicate" question of Russian lumber.  

Watson considered the whole affair "more a political question" than one within his purview, and
perhaps for this reason he went to see Wilkinson on 2 December to enlist his help in getting information on the Soviet prisoners. According to Wilkinson, Watson informed him that Commerce was concerned about Russian lumber imports and "deeply interested in certain projects on foot to alter the tariff rates on lumber." Watson told the consul that "certain sections" of the U.S. lumber industry "would jump at the chance to prove that Russian timber is convict labor produced and attempt to force its exclusion on that ground."18

They jumped quickly. By mid-January 1930, both houses of Congress were considering various measures designed to strengthen existing laws against the importation of goods produced by convict and forced labor; in the Senate some members even introduced a bill to prohibit the importation of all goods produced in the Soviet Union, on the grounds that all the inhabitants of that country were slaves anyway.19 Of course, American tariff law, under Section 307 of the Tariff Act of 1922, already prohibited the importation of "all goods, manufactured wholly or in part, by convict or forced labor," and in April 1930 this would be amended to read "mined, produced or manufactured" so that lumber would clearly fall under its provisions. To many observers, then, it seemed obvious that the United States should ban imports of convict-produced Soviet lumber.20 The problem was how to prove that convict labor was being used and, more to the point, how the executive agencies responsible for enforcing the tariff laws could be
persuaded that they had sufficient proof, and should use it. Indeed, it might be fair to say that the controversy dragged on for so long—in the face of overwhelming evidence that forced labor pervaded every aspect of the Soviet lumber industry—because key federal agencies, particularly the Commerce Department, closely attuned to business opinion, flatly opposed an embargo, no matter what the facts of the matter were.

In late January 1930, after Wilkinson had spoken with the American Customs attaché in London about convict-produced Soviet lumber, the Treasury asked the State Department to direct its representatives in Europe to provide "more definite reports" on conditions in Soviet logging districts.21 State merely sent a circular memorandum to its consular officials reminding them of American laws on the importation of goods produced by convict or compulsory labor.22 For the next three months the State Department did nothing else, during which time Wilkinson sent a stream of reports in which the consul became ever more insistent that the department use the "evidence" he had collected to help Treasury invoke the relevant sections of the Tariff Act.23 State finally complied with the spirit of Treasury’s January request on 21 April 1930, instructing consular officials to submit "any information" they could obtain on labor conditions in the Russian lumber industry.24 In the months that followed the department received several reports from across Europe—and dozens from Wilkinson—which together pointed
to the USSR’s extensive reliance on forced and convict labor, and not only in the lumber industry.²⁵

Before those reports started to come in to Washington, however, Treasury officials faced the immediate problem of what, if anything, to do with several shipments of Soviet lumber that were headed for American ports. When the first two or six ships carrying such cargo docked in New York in early July, the National Lumber Manufacturers Association (NLMA) demanded that they be refused entry. Customs officials merely detained the shipments "on grounds of suspicion," waiting until Treasury officials in Washington clarified their position on the entry of Soviet lumber in general. In two conferences on 7–8 July, officials from Treasury and State met with Wilson Compton, secretary of the NLMA, where they explained to the industry representative the reasons behind Treasury’s decision, made public on 8 July, to admit the two shipments along with the four said to be nearing port. The public statement referred to the "absence of evidence that the particular shipments" were the product of convict labor.²⁶ Compton disagreed with this conclusion, but he went along with the department’s decision because, as Assistant Secretary of the Treasury Seymour Lowman explained to him in private, "possibly innocent parties" might be injured by a decision to exclude the shipments.²⁷ Besides, the statutes clearly stated that the importer merely had to affirm that the cargoes were the product of free labor, and when the Dutton Company did so, the Customs Bureau had no choice but to
release the shipments and grant them entry.\textsuperscript{28}  

In its statement announcing release of the two shipments Treasury admitted that it had been "endeavoring for some time" to gain a concrete understanding of how lumber was produced in the USSR, but that it had been "hampered in its investigation" because of the absence of diplomatic relations with Moscow.\textsuperscript{29} Lowman, whose position was Assistant Secretary of the Treasury in charge of Customs, Coast Guard, and Prohibition, followed up this announcement with his own declaration that he would send an investigative team to the Soviet Far North to investigate conditions in the lumber camps. Lowman’s announcement, on 14 July, caught the State Department by surprise, and that very day Secretary Stimson politely but firmly rejected the idea. Both State and Treasury were trying to obtain information about labor conditions in northern Russia, he said, but that effort would not involve official representatives of the U.S. government.\textsuperscript{30} Stimson, whose department collectively was no friend of the Soviets, opposed the idea for fear of its implications for the policy of nonrecognition.\textsuperscript{31}  

The idea would not die, though, and on 17 July, Treasury Secretary Mellon asked State Department officials for their thoughts about an investigation that technically would not be "official." Apparently, the Dutton Company wanted the controversy cleared up in a quick and satisfactory way and thus proposed that Treasury officials accompany the company’s president and legal representatives
to the Arkhangel'sk region to investigate conditions in the logging districts. Still opposed, Stimson took the issue up in a meeting with Mellon and Secretary of Commerce Robert P. Lamont on 18 July. Stimson found an ally in Lamont, whose department was concerned about the ramifications an embargo would have on American sales to Russia and thus opposed both the idea of an investigation and an embargo. After a brief discussion, the three agreed that it would be "inadvisable to send American officials into Russia." 

No sooner had the proposal been scotched when a second shipment of vessels loaded with pulpwood arrived from Arkhangel'sk. Again the Treasury denied the goods entry and conducted hearings into their origins. Logging interests from the West and South, along with congressmen from the region, demanded that the wood be denied entry on the basis of Section 307 of the Tariff Act. Both the Soviet government and the Dutton Company, they claimed, already admitted that convict labor was used in the forests of northern Russia, so there should be no doubt that the shipments violated American law. The American-Russian Chamber of Commerce (ARCC), meanwhile, ignored the issue of convict labor altogether, preferring instead to warn administration officials that "hasty action" might destroy American access to the lucrative Soviet market. The ARCC was delighted when President Hoover "stepped in in a most determined manner and put an end to all this nonsense." Whether this helped influence the Treasury's decision to
release the cargo cannot be proved, but on 30 July the department decided that the evidence was "conflicting and inconclusive" and, to the outrage of many American loggers, it instructed Customs officials to grant the lumber entry.38

It is very difficult to determine exactly why the Treasury department ultimately decided not to invoke the provisions of Section 307 against Soviet lumber. Perhaps a genuine concern for the letter of the law carried the day. In explaining the decision to Representative William A. Pittenger of Minnesota, Lowman wrote that the affidavits by escaped prisoners were insufficient because they had worked 1300 miles from where the wood in these particular shipments was felled. And testimony by ship crewmen that convicts loaded the wood was "not relevant" because previous cases had determined that loading operations were not part of the production and manufacturing process—rather, that was "transportation," which Section 307 did not mention. In addition, the regulations implementing Section 307 only required importers to affirm that, to the best of their knowledge, forced or convict labor was not used. Interpreting the law strictly, perhaps the Treasury had no choice but to accept the Dutton Company's assertions that it had taken "special pains" to ensure that the Soviet lumber was "free from the contamination of convict production."39

Respect for the law probably did play its part, although this would not rule out the role of pressure from
either the White House or other executive agencies swayed by the ARCC's claim that an embargo would hurt more businesses than it helped. There is no way to measure such influence, obviously, but supporters of an embargo believed that "powerful nonpolitical influences, inspired by selfish greed," lurked behind the decision to let the lumber through.  

Alexander Gumberg also believed that "the saner heads" in the business community realized the detrimental impact an embargo would have and that "their influence as well as the attitude of the Administration towards Russian trade in general" had won the day.

There is no question that the Soviet government felt genuine alarm at the hue and cry over the convict-labor issue and sought to prevent a rupture in its trade ties with the United States. Throughout the spring of 1930 the Soviet government, through its press and unofficial representatives in the United States, had warned against what it interpreted as an unfair American effort to enjoy access to its market while Soviet goods were shut out of the American market. When the Treasury impounded the second shipment of Soviet lumber in late July, Commissar of Foreign Affairs Maksim Litvinov called it a "short-sighted" attempt to restrict Soviet sales and warned that "if they will not buy our goods, we shall transfer our purchases elsewhere." Although pleased that the embargo was quickly lifted and that President Hoover had spoken against the ban, Boris Skvirkii, head of the Soviet Information Bureau in Washington, informed his government that "the
danger to our exports has weakened but not disappeared" and that it could expect "new clashes." When the first such conflict arose, he counseled, his superiors should respond decisively by transferring purchases to other countries and not relenting until a trade agreement could be worked out that would "guarantee our elementary rights."44

Top officials in the State Department's Office of Eastern European Affairs downplayed the threat of losing Soviet purchases, believing that the Soviets, however unwilling, had no choice but to buy heavily in America, where they found the best equipment at the lowest prices.45 American businesses selling to the Soviets took the threat seriously, and Alexander Gumberg was convinced that crisis had put Soviet-American trade in a "very precarious position."46 "For the time being things are going to be quiet," he wrote to Louis Fischer, a close friend who at that time was Moscow correspondent for The Nation, but "we may have some more fireworks."47

Gumberg was right. During September and October 1930 reports from American consular officials across Europe flowed into the State Department, and although the consensus was that forced labor indeed formed the backbone of the Soviet lumber industry, virtually every diplomat warned that the evidence was second-hand and open to interpretation.48 The Tariff Commission continued to receive complaints from businesses and unsubtle inquiries from Congress, particularly from the Ways and Means Committee, prompting the commission's chairman, Henry
Fletcher, to seek State Department help in obtaining better evidence on the origins of Soviet lumber. The State Department, meanwhile, felt continuous pressure from such logging interest groups as the NLMA to secure proof that prisoners manned the Soviet lumber industry. Frustrated by the department’s inability to acquire first-hand evidence of what they considered a well-known fact, officials of the NLMA urged the State Department to persuade the British, who had official links with Moscow, to send their representatives to the Soviet Far North to investigate labor conditions there. Although department officials rejected this idea on diplomatic grounds, they thought the British scarcely would be impartial observers since they would be glad to have one less competitor to Canadian lumber on the American market. The State Department would continue to collect reports from its overseas personnel, but the utilization and interpretation of that information would remain under the Treasury’s jurisdiction.

By mid-November the Treasury Department apparently had opted for a more strict interpretation. Rumors had reached several members of the ARCC that the department was preparing new regulations on the implementation of Section 307 that would clearly put the burden of proof that imported goods were not produced by convict labor upon the importer. The chamber immediately requested a conference with F. X. A. Eble, the commissioner of customs, and on 11 November two lawyers from the firm Simpson, Thacher & Bartlett, representing A mtorg and the ARCC, met with Eble
and members of the Customs Bureau's legal staff. Eble confirmed the rumors of new regulations, informing the ARCC lawyers that while importers would now have to prove that no convict labor was employed, they should easily be able to do so by having affidavits and invoices certified by consular officials at the port of export. When the ARCC counsel reminded Eble that this would "raise great difficulties" in light of the absence of diplomatic relations between the United States and the Soviet Union, the commissioner agreed but offered no thoughts on how to resolve this potential obstacle. The meeting adjourned with the sole practical result that Eble promised to submit the new draft regulations to the ARCC for "suggestions" before putting them into effect.51 When Col. Hugh L. Cooper, the new president of the ARCC, met to discuss the new regulations with Treasury Secretary Mellon on 17 November, Mellon gave similar assurances that legal counsel for Amtorg and the ARCC would have the chance to review them before they were promulgated.52

The Treasury did not see fit to honor these promises. On 24 November, Eble issued a new set of regulations that, in the opinion of Gumberg and "very competent lawyers who have had experience in handling these matters," would make "all Russian exports to this country impossible" if they were enforced. The regulations did not mention the USSR, and Eble had insisted that they were not aimed at any country in particular. Nevertheless, when Gumberg appealed to former governor of Indiana Nelson Goodrich to use his
influence within the administration to "save the situation" he informed his friend that "there isn't any doubt in anybody's mind that these regulations are directed against Russia." 53 Nor should there have been; they were, and the Customs Bureau did not need to mention the USSR specifically for everyone to understand the motivation behind the regulations. The ongoing controversy over convict-produced lumber from Russia, which by this time had expanded to encompass manganese and coal, was the only one of its kind, and for months officials in the Treasury Department, particularly Seymour Lowman, had sought for ways to legally exclude Soviet lumber from the American market. 54

That it finally found one was the collective opinion of a gathering on 18 December of representatives from many prominent U.S. companies active in Soviet-American trade. Representatives from IGE, General Motors, Westinghouse, American Tool Works, American Locomotive, Newport News Shipping & Dry Dock, and other companies met with Gumberg and Colonel Cooper to discuss the Treasury's new regulations and determine what course of action would best secure their removal or amelioration. Several participants reported that the new rules "already have caused a substantial disruption" of Soviet-American trade because of the uncertainties they created in the minds of importers and manufacturers, who suddenly were hesitant to enter into or fulfill contracts. 55 It was bad enough that customs officials could impound goods without first giving
importers a chance to provide evidence that the shipments
conformed to law. Even worse, according to a brief from
Simpson, Thacher & Bartlett, no foreign shipper or American
importer could produce the sort of evidence the Treasury
would demand, and none would be willing—or legally able--
to provide an affidavit regarding investigations they could
not possibly undertake. This demand, plus the stipulation
that importers post a bond equal to the full value of the
imported goods while the investigation took place, created
uncertainties that no shipper or importer would be willing
to risk. Finally, according to the brief, an informal
survey of firms importing Soviet goods revealed "the fear
that at least certain officers of the [Treasury] Department
are hostile to Russian trade." The result, all
participants agreed, was that "Russian exports to this
country will be practically embargoed" and trade with the
USSR "seriously endangered." The conferees decided to
form a committee, under ARCC auspices, to go to Washington
to secure an explicit statement from Treasury on how the
new regulations would be implemented. At the very least
the ARCC hoped to bring an end to the uncertainties, but it
hoped the statement would make continued "good trade
relations" possible.

The ARCC never received the desired statement from
Treasury officials, but the intensive lobbying of
administration officials the organization began in December
1930 eventually paid off in other ways. In late December
the ARCC issued a detailed report, sent to members of the
chamber and officials in Washington, that traced the recent
growth of Soviet-American trade, showed its immense
profitability, and described the production processes of
Soviet lumber in as favorable a light as possible. Aside
from quoting the Soviet labor codes, which on paper were
among the most progressive in the world, the report drew
upon the experiences of Western newspapermen and American
engineers in the USSR to refute the charges that forced
labor existed in the Soviet Union. How could claims of
forced labor seriously be entertained, the report asked,
when American engineers told stories of labor turnover in
factories and construction projects that often reached 100
percent annually? Over fifty American firms fielded some
five hundred engineers across the length and breadth of the
USSR, in every conceivable type of productive pursuit, and
yet "none of these firms has reported the use of forced or
convict labor on their projects." 59

Concurrent with the ARCC's report, the attorneys for
Amtorg filed a detailed memorandum with the Treasury laying
out the practical and legal difficulties raised by the new
regulations. After reviewing the harm that the regulations
already had caused to a variety of U.S. firms and
reiterating the obstacles that importers faced in securing
satisfactory evidence, the memorandum went on to raise
legal objections to some of the Treasury's new rules.
While the Tariff Act of 1930 permitted the exclusion of
"specific goods which are shown to have been mined,
manufactured or produced by convicts," the department's new regulations barred "any goods" coming from a region where the Customs Bureau was persuaded convict labor was employed. The regulations therefore went beyond the intent of Congress, the memorandum claimed, and it reminded the Treasury that the U.S. Supreme Court already had ruled that "the Secretary of the Treasury can not by his regulations alter or amend a revenue law." Furthermore, the memorandum reminded the department that U.S. courts in several cases had applied a strict definition to the term "convict," and that this definition did not apply to persons who were not convicted of a specific crime but were compelled by a government for political or other reasons to work in a given locale at a specified task.60 Although the brief could have been interpreted as a threat to take the department to court over the regulations' constitutionality, neither Amtorg nor the ARCC had any such intention. Both organizations were concerned about the immediate threat to trade. As Cooper told the House Ways and Means Committee on 28 January, when testifying on behalf of the ARCC against a bill to strengthen Section 307, "I do not think anyone in our group would care to go into court. What they will say is, 'Goodbye,' and let it go at that."61

The ARCC's report and Amtorg's memorandum provided the detailed ammunition that members of the ARCC used in a series of meetings with and memoranda to top officials of the State, Commerce, and Treasury departments during the
next few months. Even though the Treasury had issued its new regulations, the ARCC took heart at Nelson Goodrich's confident prediction to Bogdanov that "these instructions are not yet final and may be modified." The chamber lined up twenty of its members to meet with Undersecretary of the Treasury Ogden L. Mills on 23 January 1931, where the delegation repeated its objections to the regulations and asked that they not be implemented until the chamber's views received "serious consideration." The meeting took place in a friendly atmosphere. Although the ARCC delegation did not win a promise to have the regulations revised, Mills surprised his guests by admitting that "it would be difficult for anyone to refute the affidavits submitted by the Russians that lumber and pulpwood were not produced by convict labor." Mills evidently could not speak for Commissioner of Customs Eble, who on 11 February disregarded such affidavits and impounded yet another shipment of Soviet pulpwood. The shipment eventually was released when the commissioner judged the evidence to be insufficient, but the incident highlighted the uncertainty that now surrounded imports of Soviet goods. Moreover, the day before Eble impounded the shipment he issued a finding that convict labor was used in the production of lumber and pulpwood in four regions of the Soviet Far North--Arkhangelsk, Karelia, Kola, and Komi--and imposed a total embargo on imported wood products from those regions.

In spite of the Treasury's unfavorable actions, the
ARCC pressed forward. It apparently had the firm support of Secretary of Commerce Lamont, who publicly voiced his department's support for the "continuance of fair trade between the United States and Russia." In private, meanwhile, the chief of the department’s Division of Regional Information, Leo Domeratzky, informed Gumberg that, while affidavits from Russian officials might be "worthless," so too were those from Russian émigrés, affidavits that constituted the sole source of evidence in Treasury findings against Soviet lumber. By late March, Gumberg was able to write to Walter Duranty, a correspondent in Moscow for the New York Times, that despite the "zig zags" in administration policy toward Russia, it seemed to him increasingly clear that "the administration would undoubtedly prefer that the Russians should continue buying in this country." In practical terms this meant that it seemed less likely that the Treasury would attach a strict interpretation to its regulations for Section 307. Or, as a disgruntled official of a New England pulp manufacturing concern put it, the Treasury was permitting the importation of Soviet lumber because charges that it was produced by convict labor "had not been fully proven, instead of insisting that the Russians prove that the evidence that convicts had been used was erroneous."

The ARCC's efforts seemed to be bearing fruit. On 27 April, Treasury Undersecretary Mills had to admit to an outraged delegation from the NLMA that the department "had
no choice, in the absence of specific contradictory evidence," but to regard the affidavits of Soviet officials as acceptable documentation.\textsuperscript{72} Even the embargo proved relatively short-lived.\textsuperscript{73} Within six months the NLMA was protesting the Treasury's decision to grant entry to a shipment of lumber from the Arkhangelsk region, despite the finding of 10 February, because "Customs officials had no evidence to disprove" affidavits supplied by Amtorg that "only free labor was used" in the production process.\textsuperscript{74}

If the signs were encouraging, then, that the Treasury ultimately would not stand in the way of Soviet exports to the United States, the contradictory decisions coming out of Washington sowed doubts and confusions that no business would suffer gladly. Nor would the Soviet government. On 30 June 1931 the chairman of Amtorg sought out Saul Bertron, chairman of the ARCC, to warn him that officials in Moscow were growing increasingly impatient with the uncertainties they faced on the American market. "They say we have no definite policy," Bertron wrote in alarm to Commerce Secretary Lamont, "and they are, confidentially, inclined to withdraw all business from America in so far as is possible" because "every piece of business is subject to delay and great expense, and frequent attacks."\textsuperscript{75} Lamont agreed that the situation was "quite unsatisfactory":

This Department has tried to keep the gates open, believing it was in the interest of the country to do so. Actually there is a difference of opinion. Some of the other Departments do not agree with our position,---and this, of course, makes it exceedingly difficult and unsatisfactory to carry on business.\textsuperscript{76}
The secretary of commerce promised Bertron, however, that as soon as he could dispose of some other pressing international matters, he would "see whether it is possible to have closer cooperation" from other departments, or at least "have a definite policy announced so that both exporter and importer know where they stand."  

By November 1931, when the Treasury admitted the shipment of lumber from Arkhangel'sk—in spite of its embargo and over the strenuous protests of the NLMA—it appeared that the outlines of a "definite policy" had appeared: goods that were proven to be produced by convict labor would be prohibited from entry into American ports, but affidavits from Soviet officials testifying that goods were produced by free labor would satisfy the department that the goods did not violate American law. In mid-October Gumberg was confident enough about the outcome to submit his resignation as Russian consultant to Chase National Bank and take up a full-time position with a company not connected to the ARCC.  

Compton’s "formal protest" to Mellon on 30 November over the Treasury’s decision to grant entry to Soviet lumber from Arkhangel’sk was the NLMA’s last salvo in the struggle, after which an uneasy peace settled over the field of Soviet-American trade.  

The ARCC had won its battle to keep the American market open to Soviet lumber and, by extension it hoped, the Soviet market open to American business. Its strategy throughout the controversy was to focus attention on the
lost sales Americans would suffer should the Soviet government be denied the ability to earn dollars, and it made much of the fact that Americans sold some $150 million worth of goods to the USSR during 1930, buying only $30 million in return. The lumber controversy and attacks on other Soviet commodities had merely "impaired business confidence" in America and "created serious difficulties for the continuance of the large American export business to that country." The organization itself avoided the question of convict labor entirely; meanwhile, individuals connected to it either denied the existence of the practice altogether or maintained that they had never seen evidence of it during their travels. Perhaps a few people genuinely believed that the tales of prison camps teeming with tens of thousands of expropriated peasants and political prisoners was simply the anti-Bolshevik scheming of émigré "monarchists." No real proof exists, unfortunately, but it seems unlikely that many did. Rather, they surely closed their eyes to the dreadful truth in order to preserve American access to what had become a lucrative market, one that, in 1930, showed every sign of becoming even more profitable.

One of the ironic twists of the Soviet-American trade relationship is that the Soviet government began to withdraw from the U.S. market just when its American friends seemed to have won the struggle to keep it open to Soviet goods. Of course, beginning in 1930 central authorities in Moscow felt compelled to make wholesale
reductions in their foreign-purchasing plans as a result of the Great Depression, and previous scholars attributed the drop in Soviet purchases on the U.S. market to the decline in Soviet foreign-exchange earnings. For these scholars, Moscow's threats to transfer its purchases from America to other countries were merely a smokescreen, a convenient fig leaf to hide an embarrassing necessity. As I hope to show, the catastrophic drop in raw-material prices during the Depression did force Soviet leaders to reduce the scale of U.S. imports they had hoped to maintain during the industrialization drive. Far more important, however, were internal considerations, particularly the overall planned reduction in imports of heavy machinery and machine tools during the Second Five-Year Plan of 1933-38, when the basic building blocks of heavy industry already were in place and the task before the Soviet economy became one of assimilating the new technology and putting it into effective operation. Within this context, the Soviet Union had a great deal of leeway in choosing the source of its imports, and that flexibility, combined with the campaign in America against Soviet goods and against lumber in particular, explains the drastic fall in American exports to the USSR in 1932.

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In one sense, the roots of the controversy were grounded in a decision the STO took in early September 1928 to try to increase the exports of lumber and wood products. At this time the First Five-Year Plan was in its take-off
stage, construction and production targets across the entire spectrum of the Soviet economy already had been raised many times, and it was becoming increasingly clear that foreign machinery and expertise would have to be brought in on a much greater scale than originally planned. More imports, of course, demanded more exports, and lumber was one of the few commodities that Western countries needed in tremendous quantities and that the Soviet Union possessed in abundance. On 6 September 1928, therefore, the STO resolved to increase the country’s exports of lumber and other wood products from a modest 136 million rubles during the 1928-29 fiscal year to 156 million rubles, a figure that represented no more than $80 million, and most likely significantly less.83

The STO cast its decree on expanding lumber exports in general terms and made no mention of the United States. Nor did it employ the usual sort of bombastic language one frequently encounters in Soviet documents: the STO did not exhort Vesenkha and the Commissariat of Trade to export "no matter what" in order to earn foreign exchange. Instead, it required the two agencies to implement their plans "in accordance with the needs of the foreign market." By now, no one reading this work will equate a decree from Moscow with the eventual reality; rather, a wise reader will suspect that Vesenkha, the Commissariat of Trade, and the various lumber trusts in northern Russia sold any and all wood at hand. Still, the decree hints at central authorities’ desire to target those markets where Soviet
lumber would find ready buyers, something the main lumber export agency, Eksportles, confirmed in late 1929 when it complained that the workers and directors it was sending abroad were failing to study the needs of foreign markets and were not forging links to potential buyers of Soviet lumber. But in 1928 the main goal was to obtain the best possible price by determining which wood products the USSR could sell that no other supplier could provide. Ironically, in light of what occurred later, the STO also boosted the lumber trusts’ foreign-currency accounts, so they could buy the machinery that would rationalize production and make possible the hoped-for increase in exports. By December 1928, Vesenkha already had appropriated an additional 12 million rubles to lumber-processing factories alone so they could purchase and install modern foreign machinery. In other words, much of the foreign exchange earned by Soviet lumber exports was to be spent right away in foreign markets.

This situation continued throughout 1929 and into 1930. Indeed, the records of the Russian Federation Vesenkha contain a folder with dozens of import licenses from 1929 and 1930 for the various state lumber trusts allowing them to purchase millions of dollars’ worth of foreign machine tools, trucks and tractors, and other wood-processing equipment. In late 1929, for example, the Komi State Lumber Trust won the right to order some two hundred thousand gold rubles’ worth of American machinery for its Arkhangel’sk subsidiaries alone—just as the American
campaign against imports of Soviet lumber from Arkhangelsk was about to flare. At the same time, the Communist party's Central Committee ridiculed the "antediluvian methods" practiced in the northern forests and urged Vesenkhà to spend more foreign currency on the mechanization of lumber harvesting, transport, and processing. As late as April 1930, in fact, after the STO had decried America's "protectionist bacchanalia" against imports of Soviet goods, Vesenkhà still was authorizing additional American purchases for the lumber industry.

Beginning in the late spring of 1930, however, events in the global economy would combine with political decisions in Moscow to conspire against U.S. sales to the Soviet Union. As other scholars have noted, the First Five-Year Plan was predicated in part on the assumption that the "capitalist stabilization" of the 1920s would continue. When these assumptions came crashing down in 1929 and 1930 with Wall Street, the Soviet government suddenly had to deal with a global market where prices for its main export commodities—lumber, oil, anthracite coal, manganese, and, occasionally, grains—fell much faster than prices for the machine tools and other manufactured goods the USSR needed to buy. The only course open to central authorities was to force exports in order to make up the price differential, thereby squeezing already horrendous living standards, and reduce imports wherever possible. Nevertheless, in early 1931 the USSR's external debt,
according to Stalin, exceeded $700 million, and by far the majority of this was short-term debt.\textsuperscript{91}

There is no question that in early 1930, Soviet leaders felt compelled by their country's mounting debt to reduce imports across the board, a decision that came independently of political considerations regarding relations with any particular state. Vesenkha created a special "Commission for the Reexamination of Imports," the so-called Figatner Commission, which was to review all external purchases and approve the issuing of import licenses.\textsuperscript{92} The Figatner Commission in fact became an informal court of appeals for trusts that were refused licenses by the Commissariat of Trade, but the important point here is that the commission dealt with imports from all countries. It was not set up, nor did it act, as a filter through which imports from America were screened.\textsuperscript{93}

No later than April 1930, then, the planners in Moscow had begun seeking ways to reduce purchases abroad, even though they had just concluded another round of "bacchanalian planning" that had essentially doubled the original production targets of the Five-Year Plan.\textsuperscript{94} But purchases on the American market did not fall. Negotiating the minefield of Soviet statistics is a risky endeavor, and complicating the process is the fact that Soviet trade-turnover statistics reflect the consummation of a transaction rather than its negotiation. Nonetheless, the figures do seem to indicate that Soviet purchases in the United States held steady throughout 1930 and into the
first half of the 1931 fiscal year. For the year ending 30 September 1930, Soviet purchases in the United States amounted to $150 million. This rate held steady for the next six months, during which time Soviet purchases totalled $68 million. Only during the second half of 1931 did Soviet organizations sharply curtail their orders on the U.S. market, so much so that their purchases from October 1931 through March 1932 amounted to only slightly less than $7 million.

Throughout this period, of course, Soviet purchases in most countries showed the same general decline inspired by the dearth of foreign exchange and the planned decrease of imports as the First Five-Year Plan came to an end. If we look at the distribution of purchases among countries, however, an interesting picture emerges showing how the relative percentage of total Soviet purchases in various countries fluctuated sharply. In the 1930 fiscal year the United States supplied 24.97 percent of the USSR’s imports. This percentage fell slightly in FY 1931, to 20.8, but then plummeted in FY 1932 to 4.5 percent. Over the same period of time, meanwhile, Germany and Britain captured the share the Americans lost, Germany’s portion rising from 23.68 percent in FY 1930 to 46.43 percent in FY 1932, and Britain’s going up from 7.57 percent to 13.01 percent. In absolute terms, Germany’s exports to the USSR fell from 410 million rubles in 1931 to 324 million in 1932, even as its percentage share of total Soviet imports almost doubled. The fall in total value came from Moscow’s need to reduce
overall imports. But the value of U.S. exports over the same two years went into free-fall, dropping from 230 million rubles in 1931 to 32 million in 1932. Something more than the Depression was at work here.100

Soviet purchases on the U.S. market probably would have declined without the lumber controversy,101 but it was that dispute, plus the Hoover Administration's seeming indecision over the matter and the ongoing threat of embargo emanating from Congress in 1930 and 1931, which explain the catastrophic drop that took place beginning in the second half of 1931. In May 1930, Vesenchka’s daily paper marvelled at the "doubts" U.S. businessmen had about their trade relationship with the USSR. The U.S. Commerce Department had just released preliminary figures showing that the quarter ending March 1930 had been a record-breaking period for U.S. exports to the Soviet Union: over $44 million in goods had been shipped to the USSR, compared to a figure of $12 million for the same period of 1929. In the wake of these figures, however, Business Week, which Soviet officials in Moscow considered the authoritative voice of Wall Street, opined that trading with the Bolshevik state was ultimately not in the interests of either the United States or other Western governments. Certain American firms might not be able to resist the undeniable profits to be gained from dealing with Moscow, but Business Week wondered if they were not merely strengthening a regime committed to the destruction of the capitalist system throughout the world.102
There is good reason to believe that senior Soviet officials never understood how seriously foreign audiences took those aspects of official ideology that trumped the coming world revolution and the overthrow of capitalism. To these Bolsheviks, instinctively prepared to admit the shrewd cunning of Western capitalists, their ideological adversaries should have been perceptive enough to realize that propaganda ran on different levels, and that the salient feature of Soviet propaganda at this time was the slogan "Socialism in One Country." Any Western businessman should have understood that the primary goal of the Soviet state was to keep the doors open to trade with the West, if only because the success of the First Five-Year Plan depended on it. For Soviet leaders, their oft-stated desire to trade with America, and the obvious profitability of that trade for America, should have been all the proof American businessmen (and government officials) needed to conclude that maintaining correct relations with the United States was the basic goal of Soviet diplomacy. In December 1933, in remarks intended for the ears of a man in Berlin who struck mortal fear into Soviet hearts, Litvinov assured an audience of Soviet legislators that "we understand very well the difference between doctrine and policy." These words could just have easily been addressed to Americans in 1930-31, for the same basic principle animated Soviet foreign relations even then.103 Never mind that Soviet doctrine and policy had gone through innumerable contortions since 1917, the two sometimes running a
parallel course, at other times sharply diverging, and thereby convincing many Western observers that Soviet foreign policy was capricious and opportunistic. It is almost as if Stalin and his colleagues believed that Western statesmen and businessmen should have been able to penetrate the fog surrounding Soviet policymaking and calculate the importance of policy or doctrine at any given time. And since, during the First Five-Year Plan, the policy of "socialist construction" at home undoubtedly outweighed "proletarian revolution" abroad, American businessmen in particular should have realized it, and acted accordingly.¹⁰⁴

Instead, Soviet leaders had to sit back and watch in amazement and growing fury as their people and products in America were mistreated. It was bad enough that their exports were embargoed and subjected to congressional hearings on dumping and convict labor. Adding insult to injury, the trade dispute took place against the backdrop of a noisy congressional investigation of alleged subversive propaganda by Amtorg in New York and the Soviet Information Bureau (Sovinform) in Washington. The latter investigation grew out of the sensational publication on 2 May 1930 of the "Whalen Documents," which New York City Police Commissioner Grover Whalen claimed gave convincing proof that personnel in Amtorg and Sovinform were acting as couriers between the Comintern and the American Communist Party. Representative Hamilton Fish (R-NY) seized upon the publication of these documents to convince his House
colleagues that an investigation of Soviet subversion in the United States was in order. The House concurred on 22 May 1930, and the "Fish Commission" started work on 9 June. A seven-month circus ensued, during which time the Fish Commission held public hearings in cities across the United States and took testimony from 275 witnesses.\textsuperscript{105}

The Soviet government took the Fish Commission's investigation very seriously and spared no effort to prove that the "Whalen Documents" were forgeries and that Amtorg and the Sovinform confined themselves strictly to business-oriented activities. Both Bogdanov at Amtorg and Skvirskii at the Sovinform promptly denounced the documents as forgeries, Skvirskii requesting that he be given the opportunity to appear before the Fish Commission to argue his case and present materials that he believed would prove that both Soviet agencies had nothing to do with politics.\textsuperscript{106} As it was, both men were brought before the commission, not so much to explain the activities of the organizations they headed, it appeared, as to provide a setting in which Senator Fish could display his anti-Bolshevik zeal. When Bogdanov repeatedly declined to discuss his views on American politics as alien to his duties as chairman of a trading organization, Fish threatened to hold him in contempt.\textsuperscript{107} Still, Bogdanov made a favorable impression on observers at the hearings and particularly on American newspaper correspondents, in part because of his demeanor but mainly because of a thick file his agency prepared detailing dozens of discrepancies
between the "Whalen Documents" and well-known facts. By the time the commission temporarily adjourned in early August, most of the American press was ridiculing the proceedings and judging the two Soviet agencies to be free of any taint of political activities. Some wondered whether the loudest proponent of the commission's work, Matthew Woll, vice president of the American Federation of Labor and a member of the board of the National Civic Federation, was somehow tied to the mysterious appearance of the "Whalen Documents." The Fish Commission would continue its hearings until early January 1931, at which time it presented a report to the full House admitting that it lacked proof that Amtorg and the Sovinform were engaged in anything other than their stated business. In the meantime, Soviet officials in America had to juggle their handling of the commission's charges with efforts to prevent the increasingly hostile attitude toward imports of Soviet goods from blossoming into a full-scale embargo. Bogdanov's appearance before the Fish Commission came on 28 July, the very day the Treasury Department ordered another shipment of Soviet lumber impounded while investigations into its origins were conducted. It was this oppressive atmosphere that prompted Bogdanov to lash out against both the "array of obstacles" being thrown in the way of Soviet exports to America and the "absolute lies" that Amtorg was engaged in subversive activities. The chairman of Amtorg warned Americans again that "if the USSR is to purchase goods abroad, it obviously
must be given a market for its exports. The USSR sells to
the USA no more than one-third of what it buys from the
USA. Reducing the USA's imports of Soviet goods will
definitely have an impact on Soviet purchases in this
country.\textsuperscript{111}

Back in Moscow, meanwhile, officials used the press to
voice their growing concern and frustration with U.S.
policy and their desire to avoid a breach.\textsuperscript{112} On 1 August,
in a long front-page editorial ostensibly directed at
directors of Soviet trusts and factories, Vesenkha's \textit{Za
industrializatsiiu} wondered if Soviet industry would soon
be faced with the need to "restructure" itself along non-
American lines. After having bought millions of dollars'
worth of American equipment and learned American production
techniques, no one wanted to jettison familiar and fruitful
relationships and begin to cultivate new ones with, say,
British or German firms. But "all of our industrialists,"
asserted the daily,

\begin{quote}
believe that they can adapt. No need to hide from
ourselves or others that this organizational break
would be fraught with some difficulty. American
technique occupies a high level—that is indisputable.
There is something to be said for learning from the
Americans. Even so, we also must admit that, here and
there, some of us suffer from Americomania. First of
all, we must carefully reexamine our orders in the USA
to determine where we can substitute our own goods for
imported ones. Secondly, we must consider other
industrial countries besides the USA.
\end{quote}

The editorial concluded by hailing the efforts of "American
industry as a whole" to counter the anti-Soviet campaign of
"an extremely insignificant group of American
industrialists." But it also warned that, "should the
prohibitions against importing our goods continue, then we will stop purchasing goods in America." Over the next several days the paper and its STO counterpart, Ekonomicheskaia zhizn', carried articles by planning officials and factory directors in which all wrote of their desire to maintain the American connection, their indignation at the anti-Soviet campaign, and their confident determination that they and their subordinates could manage a transition to new foreign relationships if it proved necessary.

That the Soviet leadership was hoping it would not come through clearly in a full-page article in Pravda on 12 August by that long-time champion of American technique, N. Osinskii. He rejected American charges of Soviet forced labor out of hand and called complaints against Soviet dumping "exaggerated." Striking a familiar chord, Osinskii marvelled at the U.S. government’s ability to assert that it encouraged, or at least did not oppose, Soviet-American trade at the same time that it threw all sorts of barriers in the way of that trade. Temporary embargoes were only one manifestation of those obstacles, Osinskii wrote. Equally damaging were Washington’s "credit blockade," its refusal to establish diplomatic relations with the USSR, and, most recently, its harassment of Soviet officials in America. Did the American government, Osinskii exclaimed, seriously expect a government led by Communists to send abroad non-Communists who consequently would have no standing or authority back home? And did American
businessmen really think that they could maintain a high level of sales to the USSR if they were unwilling to purchase even a small amount of Soviet products in return? If the answer to both questions was "yes," then the Soviet government would have no choice but to "transfer our equipment orders to Europe."\(^{115}\)

The Soviet government obviously wanted to signal its growing impatience without taking any drastic steps, and Soviet officials in the United States stressed to their superiors in Moscow that the situation, while fluid, was not yet irredeemable.\(^{116}\) But there were also several officials in Moscow, mainly in the top economic planning agencies, who were angered at the continuing uncertainty, particularly at the ongoing uproar in the American Congress, and convinced that the Americans should be taught that trade would have to be a two-way street.\(^{117}\) Their position was buttressed by a controversy over alleged Soviet short selling of wheat on the Chicago Mercantile Exchange in late September, which almost prompted a Department of Agriculture investigation before the allegations were proved groundless in early October.\(^{118}\) Interestingly, however, the final straw came from France, where the government instituted a "special regime" of tariffs and quotas on a variety of Soviet exports. On 20 October the Council of People’s Commissars (Sovnarkom) reacted by instructing the Commissariat of Foreign Trade to "discontinue altogether or to reduce to a minimum" its purchases in countries imposing "discriminatory measures"
on imports of Soviet goods. The French government’s action may have provided the immediate excuse for the Sovnarkom’s decree, but Deputy Commissar of Trade Rozengol’ts made it clear that the law would apply to any country that persistently engaged in "anti-Soviet" trade activities.

Although the ARCC immediately recognized the threat to American sales to Russia in the decree and used it illustrate to the administration the dangers of further action against Soviet imports, few others seemed to take note. In a report to Commissar of Foreign Affairs Litvinov in late November 1930, Skvirskii laconically opened his despatch by noting that "the campaign to embargo Soviet products goes on." The Fish Commission continued its series of cross-country hearings on Communist activities, but what Skvirskii had in mind this time was a convention of manganese producers on 10-11 November, where speaker after speaker rose to accuse the USSR of dumping its manganese on the American market and destroying the American manganese industry. Sen. Tasker L. Oddie, representing Nevada, not surprisingly, had been in contact with Lowman and other Treasury officials since late July 1930 in an effort to have countervailing duties slapped on Soviet imports of manganese, but the issue had not entered the public spotlight prior to the November convention. Both U.S. steel producers and the ARCC had jumped to the defense of Soviet manganese, pointing out that domestic production constituted less than 7 percent of total
manganese consumption in America and that Soviet manganese, because of its exceptional purity, not only was not dumped but commanded higher-than-average prices.\textsuperscript{123} By late December, under pressure from Oddie, the Treasury promised to investigate the charges, and there the matter rested until 24 February 1931, when Mellon announced that "a finding of dumping" against Soviet manganese "is not justified."\textsuperscript{124}

Mellon’s finding surely heartened Soviet officials when it came, but in the meantime they had to watch from the sidelines as Oddie, on 2 December 1930, introduced in the Senate a bill "to prohibit the importation of any article or merchandise from the Union of Soviet Socialist Republics."\textsuperscript{125} This bill, too, would come to nothing, but in December, Soviet officials had no way of knowing what the outcome would be. What they knew was that the House Ways and Means Committee was holding hearings on the importation of goods produced by forced and convict labor in January, and that the target of these hearings unquestionably was Soviet goods. Lumber was the commodity that had garnered most of the attention and generated the most heat, but manganese producers had put imports of that Soviet article onto the agenda, and it was common knowledge that American producers of anthracite coal were demanding that imports of Soviet anthracite be excluded on forced-labor grounds as well.\textsuperscript{126}

It was with evident relief that Skvirskii reported on 9 March that "the congressional session ended on 4 March, and
with it, temporarily, the determined efforts to make it impossible for us to export to the United States." Corroboration came from a Soviet official in the London embassy, who reported that Ivy Lee, passing through the city in mid-March, believed that with Congress now out of session, no legislation against imports of Soviet goods could be passed for at least another year, and even at that he doubted any such attempt would fail. And in a conversation with Bogdanov on 30 May, Senate Foreign Relations Committee Chairman William E. Borah reassured the Soviet trade representative that his government should "pay no attention to Fish’s propaganda" or congressional investigations of forced labor. Borah recently had spoken with Hoover, who had no intention of establishing diplomatic relations with Moscow but who nonetheless wanted to keep the doors open to continued Soviet-American trade.

Reprieve notwithstanding, the Soviet government already had set in motion the process of shifting its business to other countries. Every Soviet trust did not abruptly cancel its orders with U.S. companies. For one thing, countless factories still under construction had been designed around American equipment, and others were only half-way through the process of installing machinery, so when some trusts altered plans that called for the purchase of American machinery, they ended up sowing "confusion" in their plants and had to revert to their original plans. For another thing, too many Soviet economic policymaking
agencies and industrial organizations, whatever they thought of the broader national policy, felt that their own plans and targets required continued purchases in America. The Foreign Section of Vesenkha became the most ardent exponent of this view, and it warned the Presidium that curtailing purchases in the United States would scuttle the production plans of a host of factories and bring construction of others to a halt. In many instances such warnings were well-founded. The director of the Moscow Chemical Trust was outraged when the Regional Industrial Committee reprimanded him for his "careless attitude toward fulfilling his export tasks," since his factories' production plans had been predicated upon the receipt of American equipment that, at the last moment, had been prevented. Other directors had better luck. In spite of centralized planning and the government’s foreign-trade monopoly, industrial agencies, powerful trusts, and the administrators of important industrial construction projects were able to get the go-ahead, and the dollars, to buy American goods.

Nevertheless, in the ensuing year Soviet purchases in America declined, at first gradually, and then drastically. The decision to cut back their dealings with American business was not one that Soviet policymakers took lightly, or even gladly. Their grandiose plans for transforming a backward peasant-based agricultural economy into a powerful industrialized one were in full swing, and it was a plan based in large part on extensive purchases of
advanced machinery and technical expertise in the United States. For years Soviet policymakers and industrialists had extolled "American technique," urged their countrymen to emulate American business attitudes, and tried through a variety of technical-assistance agreements to import what they saw as the miracle of American industrial prowess. How successful that effort was is another matter, but there is no doubt that the captains of Soviet industry displayed a genuine enthusiasm for "the American way." As far as top policymakers are concerned, however, their fascination with American methods and American technique, and their sincere desire to forge close contacts with American business, did not mean that they were willing to suffer trade practices they regarded as discriminatory, insulting, and in the long run, ruinous.\textsuperscript{136}

There can be no doubt that the Soviet lumber industry relied heavily on forced and convict labor. In early 1931 the Soviet government even admitted that convicts were put to work on "socially constructive" projects. But it claimed that the work was rehabilitative in nature and that the number of prisoners actually involved was "insignificant." As far as Western reports that whole industries operated on the basis of forced or convict labor, Moscow dismissed them as "the usual sort of slander."\textsuperscript{137} To Soviet leaders, the convict-labor issue was merely a smokescreen, a "landmine" that implacably anti-Soviet Americans buried in the path of Soviet-American trade in hopes of wrecking any normalization of relations
between the two countries.\footnote{138} For those American "hardheads," as the Soviets called them, any trade with the Soviets, no matter how profitable for American business, was anathema, for it would legitimize the Soviet government and strengthen its domestic position.\footnote{139} By cutting back their purchases on the U.S. market, Soviet leaders evidently thought they could bring those sensible, profit-seeking capitalists back to their senses: Wall Street would put its economic interests before any illusory "political" goals, end the noisy campaign against convict-produced goods and the larger crusade against Soviet dumping, and use its influence to force the U.S. government to put Soviet-American economic relations on a stable, diplomatic footing.\footnote{140} It was not the first time that Soviet ignorance of American politics led to miscalculation in Moscow; nor would it be the last time. But in 1931 it contributed to the end of an unusually close and mutually beneficial economic relationship that, despite occasional hopes, has never been renewed.
1See Hiroaki Kuromiya's discussion of the "destabilizing impact of industrial modernization on the old order in the factories" in Stalin's Industrial Revolution, 100-107.


3"Problemy piatiletki vneshnei torgovli," Pravda, 16 May 1929. The Soviet government's goal was to gain a basic independence from reliance on foreign machinery and expertise by the end of the Five-Year Plan, which would come in mid-1933. Moscow did not envision autarchy but, rather, modest participation in world trade on the basis of an industrial economy that could hold its own with the capitalist economies.


5Ibid., 7-8.

6A. W. Cooper to Walter Newton (secretary to the president), 10 April 1929, Hoover Presidential Papers, box 286, folder: "Tariff Commission--Commodities, Lumber--Correspondence, 1929, April-May." Condon's allegation that the Soviets were selling their lumber at a loss had a grain of truth. In the fall of 1927, when the Soviets sent their first four shiploads of wood to the United States, they had no knowledge of the dimensions of lumber used on the U.S. market. No American manufacturer wanted the lumber, and the Dutton Company was compelled to sell the wood at a significant loss. See A. C. Dutton (Dutton Lumber Corp., Providence, RI) to Nelson H. Morgan (eastern sales manager, Shevlin Carpenter & Clarke Co.), 8 March 1929, ibid., folder: "Tariff Commission--Commodities, Lumber--Correspondence, 1929, March."

7Dutton to Morgan, 8 March 1929.

8Ibid. In 1928, Soviet authorities began a concerted effort to increase lumber exports. See below for a brief discussion of this (largely unsuccessful effort.

9Saul Bron statement to press, 11 April 1929, enclosed
in A. A. D. Rahn (vice president, Shevlin Carpenter & Clarke Co) to Hoover, 12 April 1929, Hoover Presidential Papers, box 286, folder: Tariff Commission--Commodities, Lumber--Correspondence 1929, April-May."

10Cooper to Newton, 10 April 1929. On Soviet efforts to obtain better prices for their lumber see Anastas Mikoiian's report to the All-Union Export Conference, "Eksportnye zadachi," Ezh, 23 March 1929.

11Wilkinson des. 479 to Stimson, 20 June 1929, RG 59, 611.616-Lumber/1.


13Wilkinson's despatches are located in a large file of material on the lumber controversy. See RG 59, 611.616-Lumber, with over 200 documents dated from June 1929 to November 1931.


15See, for example, the letter from Robert J. Phillips (Bureau of Foreign and Domestic Commerce liaison officer) to Wilbur J. Carr (assistant secretary of state), 16 January 1930, RG 59, 611.616-Lumber/8, in which Phillips refers to the "movements as to U.S. tariffs on lumber" and the surge in "various proposals by lumber interests" regarding Russian lumber. Phillips pointed out that the bureau, a division of the Commerce Department, had received a number of reports from Consul Wilkinson in Finland.

16The documents are too numerous to cite fully but can be found throughout RG 59, 611.616-Lumber; in the Hoover Presidential Papers, boxes 286 and 287, Tariff Commission folders; and in Record Group 81, Records of the U.S. Tariff Commission, box BC-2, National Archives, Washington, DC (hereafter RG 81, with filing information). The position for tariffs and for excluding Soviet lumber, held by western loggers, is best spelled out in Wilson Compton (secretary and manager, National Lumber Manufacturers Association) to Lowman, 14 July 1930, RG 59, 611.616-Lumber/117. The opposition to tariffs and to the exclusion of Soviet lumber on the part of eastern loggers and the
processors of wood is thoroughly outlined in a letter from 
the National Retail Lumber Dealers Association to Walter H. 
Newton (secretary to the president), Hoover Presidential 
Papers, box 287, folder: "Tariff Commission--Commodities, 
Lumber--Correspondence 1930"; and "Minutes of Conference in 
Consideration of American-Russian Trade" (New York City), 
18 December 1930, Gumberg Papers, box 8-C, folder: 
"December 1 to December 31, 1930." Perhaps the most 
complete exposition of the breakdown of views within 
American business on the lumber controversy is in U. S. 
Congress, House Committee on Ways and Means, Hearing on the 
Prohibition of Importation of Goods Produced by Convict, 
Forced, or Indentured Labor, 71st Cong., 3d sess., 
Washington, DC, 27–28 January 1931 (copy in RG 81, box BC- 
2).

17Watson to Cooper, 15 January 1930.

18Ibid.; Wilkinson des. 570 to Stimson, 3 December 
1929, RG 59, 611.616-Lumber/5.

19See Representative Guy U. Hardy (Col.) to Stimson, 7 
August 1930, with enclosed letter of 1 August 1930 from G. 
E. Collisson (manager, Denver Chamber of Commerce) to 
Colorado congressional delegation, RG 59, 611.616- 
Lumber/71; and Willis C. Hawley (Ore.) (chairman, Committee 
on Ways and Means) to U.S. Tariff Commission, 14 August 
1930, RG 81, box BC-2; and the copy of draft Senate bill 
4848 in W. G. Carruth (special assistant, Senate Committee 
on Finance) to Stimson, 20 January 1930, RG 59, 
611.616/180.

20The National Lumber Manufacturers Association pointed 
this out insistently, and with increasing exasperation, as 
1930 dragged on into 1931 with no decisive action taken by 
the Treasury Department. The text of the tariff acts of 
1922 and 1930 are printed in the congressional hearings 
cited in note 16.

21Lowman to Stimson, 27 January 1930, with enclosed 
letter of Charles R. Howard (assistant Customs attaché) to 
commissioner of customs, 20 December 1929, RG 59, 611.616- 
Lumber/11.

22I could not locate the original despatch, but it can 
be found in a subsequent memorandum by Robert F. Kelly, 27 
March 1930, ibid. /28.

23For a sampling of Wilkinson's reports see des. 596 of 
5 February 1930, des. 607 of 10 March 1930, an unnumbered 
despatch of 13 March 1930, des. 619 of 21 March 1930, and 
an unnumbered telegram of 19 April 1930, in ibid. /16, 19, 
18, 24, and 27, respectively. His des. 596 contains a copy 
in English and Russian) of an "Order to the Administration 
of the Solovetsky Camps of Special Designation of the City
of Kem OGPU" [the Soviet secret political police, which ran the Gulag], in which the local camp administrators are urged, and told how, to increase their timber-cutting program, upon which "timber exports, which are one of the chief items of income of our socialistic budget," depended.

24 State Department circular to "Certain American Consular Officers," 21 April 1930, ibid. /25.

25 See, for example, Lowman to Stimson, 5 April 1930, ibid. /23; Louis Domeratzky (chief, Eastern European Division, Bureau of Foreign and Domestic Commerce) letter to Marc A. Rose, 8 May 1930, Record Group 151, Records of the Bureau of Foreign and Domestic Commerce, General Files 448, folder: "Russia--General, 1927-1930" (hereafter RG 151, with filing information); Watson to Axel Oxholm (chief, Lumber Division, BFDC), 12 July 1930, and Felix Cole (U.S. consul general, Warsaw) des. 70 to Stimson, 24 July 1930, RG 59, 611.616-Lumber/65 and 69; "Are We Headed for Soviet Recognition through Trade Entanglement?" Manufacturers Record, 7 August 1930; and Thomas H. Bevan (U.S. consul general, Oslo) des. 374 to Stimson, 16 August 1930, Carol H. Foster (U.S. consul, Rotterdam) unnumbered despatch to Stimson, 10 September 1930, and Charles L. Hoover (U.S. consul general, Amsterdam) des. 458 to Stimson, 1 October 1930, RG 59, 611.616-Lumber/88, 113, and 131, respectively.

26 Treasury Department press release, 8 July 1930, RG 59, 611.616-Lumber/43.


28 Lowman to Compton, 21 July 1930, ibid. A copy of A. C. Dutton's affidavit, dated 7 July 1930, affirming that no convict labor was used in the production of the lumber in this shipment, is located in the American-Russian Chamber of Commerce's report, "The Facts about American-Soviet Trade," December 1930, Gumberg Papers, box 8-C, folder: "December 1 to December 31, 1930. The report contains affidavits from various Soviet officials as well.

29 Treasury Department press release, 8 July 1930.


31 For general State Department hostility to the Soviet Union, for disparagement of its Five-Year Plan of industrialization, and an overall, institutional opposition to having any sort of dealings with the Soviet governent, one need only read through the RG 59 decimal files 861.50, in particular 861.5017-Living Conditions. One can also get

32 Andrew W. Mellon to Stimson, with attached notes and comments by State Department staff, 17 July 1930, RG 59, 611.616-Lumber/46. See also Robert F. Kelley's memorandum of a conversation with Lowman and F. X. Eble (commissioner of customs), 23 July 1930, ibid. /66.

33 W. H. Rastall (chief, Industrial Machinery Division, Department of Commerce) to Ernest F. DuBrul (general manager, National Machine Tool Builders' Association), 18 July 1930, RG 151, box 221, folder: "Machinery--Russia 1930-1931." For the State Department's indifferent attitude toward Soviet-American trade, which can best be expressed as a willingness to allow U.S. companies to sell the USSR whatever they could while not worrying about the USSR's ability to pay for those purchases by selling on the U.S. market, see, for example, Division of Western European Affairs memorandum, "European Union and Soviet Economy," 25 April 1930, RG 59, 861.50-Five Year Plan/50, and the attached memorandums by E. L. Packer (Division of Eastern European Affairs), 14 and 26 July 1930.


35 See the correspondence between R. S. Burruss (Burruss Land & Lumber Co., Lynchburg, VA) and Lawrence Richey (secretary to Hoover), 25-28 July 1930, W. J. Donald (assistant to the chairman of the Republican National Committee) to Walter Newton (secretary to Hoover), 25 July 1930, and Newton to Claudius H. Huston (chairman, Republican National Committee), 29 July 1930, all in Hoover Presidential Papers, box 993, folder: "Countries--Russia, Correspondence, 1930, July"; and Comptons to Lowman, 26 July 1930, RG 59, 611.616-Lumber/117.

36 See the telegrams from the "Special Committee" of the American-Russian Chamber of Commerce telegram to Hoover, 24-30 July 1930, Gumberg Papers, box 8-B, folder: "June 1 to July 31, 1930." See also Bogdanov to S. R. Bertron (chairman, ARCC), 28 July 1930, ibid.

37 Gumberg to Louis Fisher, Gumberg Papers, box 8-B, folder: "August 1 to September 30, 1930." See also Lowman press release, 1 August 1930, RG 59, 611.616-Lumber/47. Bogdanov (Amtorg) was particularly gratified by Hoover's

38 For the reaction of those sectors of the American lumber industry demanding an embargo see Hardy to Stimson, 7 August 1930, RG 59, 611.616-Lumber/71; Hawley to U.S. Tariff Commission, 14 August 1930, RG 81, box BC-2; the correspondence between R. S. Burrus and Hoover’s secretary, Lawrence Richey, 20, 22, and 25 August 1930, Hoover Presidential Papers, box 993, folder: "Countries--Russia, Correspondence, 1930 - July"; and Lowman to Senator Morris Sheppard (Tex.), 4 September 1930, ibid., folder: "Countries--Russia, Correspondence, 1930 - September."

39 Lowman to Pittenger, 7 August 1930, Hoover Presidential Papers, box 993, folder: "Countries--Russia, Correspondence, 1930 August." See also Pittenger to Walter Newton, 1 August 1930, ibid.


42 See, for example, "Protektsionistskaiia bakhkhanaliiia v SASSh," EZh, 26 March 1930; USSR Chamber of Commerce for Western Trade, Monthly Bulletin 2 (March-April 1930); "Amerikanskaia burzhuaziia v razduume: Torgovat’ s SSSR vygodno, ukreplenie SSSR--nezhelatel’no," Pravda, 22 May 1930; and "Soobshchenie sovetskoii pechatii o zaiavlennii predsedatelia pravleniia Amtorga’ P. A. Bogdanova predstaviteliam pressy," 31 June 1930, DVP_SSSR 13:437-39.

43 Litvinov’s statement was not published in the Soviet press, as far as I could determine. It is enclosed in Bogdanov’s letter to Saul Bertron, 28 July 1930. Other Soviet officials made similar comments and warnings. See David Macgowan (first secretary of U.S. legation, Riga) des. 7173 to Stimson, Confidential Post Records, Russia and the Soviet Union, Part 2, Section B [631R-U.S.], microfilm reel #27; "Sokrashchenie importa SSSR v SASSh otrazitsia na ego zakupkah v etoi strane," Pravda, 31 July 1930; and "Pereraspredelenie zakazov vpolne vozmozhno," and "Khoziaistvenniki ob ugroze sryva sovetsko-amerikanskoi torgovi," ZI, 1 and 2 August 1930.

See John F. Carter (Division of West European Affairs) undated [no later than 29 July 1930] memorandum, "Effects of United States Embargo on Soviet Products," RG 59, 611.616-Lumber/171. The memo is interesting because Carter assumes that a variety of other Soviet goods, particularly manganese and anthracite coal, soon would be subject to similar temporary or long-term embargoes. He also wonders if the Treasury's actions were not merely "the last outburst of the old melodramatic anti-Russian complex." In the memo Carter discusses fairly even-handedly the pros and cons, from an American standpoint, of the embargo. E. L. Packer (Eastern European Division) disparaged most of the cons in marginal notations. See also Packer letter and memorandum to William R. Castle, 15 August 1930, RG 59, Records of the Office of Eastern European Affairs, U.S.S.R. Section, General Records 1911-1940, box 3, folder: "R-6000 U.S. 1930-.


Gumberg to Fischer, 20 August 1930.

See, for example, the despatches from North Winship (Copenhagen), 9 September 1930, Carol Foster (Rotterdam), 10 September 1930, A. T. Haeberele (Dresden), 25 September 1930, Lester Schnare (Breslau), 29 September 1930, Charles Hoover (Amsterdam), 1 October, and John Ball Osborne (Stockholm), 15 October 1930, all in RG 59, 611.616-Lumber/115, 113, 127, 128, 131, and 139.

Henry P. Fletcher to Stimson, 30 September 1930, ibid. /122.

Packer memorandum of conversation with NLMA representatives Compton and Barr, 8 September 1930, ibid. /117.

Gumberg "Memorandum of Conference of November 11, 1930, with Bureau of Customs Relative to New Regulations for Enforcement of Section 307 of the Tariff Act of 1930 (Convict Labor)," 13 November 1930, Gumberg Papers, box 8-C, folder: "October 1 to November 30, 1930."

Gumberg to Goodrich, 24 November 1930, ibid.

Ibid. For the new regulations see F. X. Eble, "Convict-Made Goods Regulations" (T.D. 44385), 24 November 1930, RG 59, 611.616/196.
There is no room here to discuss the controversy over Soviet manganese and coal. Numerous reports and despatches on these commodities are located in RG 59, 611.616 (with subheadings of "Manganese" and "Coal"). See also the report of the Commerce Department to the House Committee on Ways and Means, "Labor in the Coal Fields of Soviet Russia," 20 December 1930, and the report of the Tariff Commission, "The Anthracite Coal Industry of Soviet Russia, 19 January 1931, copies of both in RG 81, box BC-2, folder "Anthracite Coal Industry of Soviet Russia (Sec. 332); and the correspondence between Sen. Tasker L. Oddie (NY) and Treasury officials on the manganese industry and Soviet dumping of manganese ore, 30 July 1930 to 24 February 1931, Congressional Record 71st Cong., 3rd sess., 1931, vol. 74, pt. 7:6430-6449.

Minutes of Conference in New York City on American-Russian Trade," 18 December 1930, Gumberg papers, box 8-C, folder: December 1 to December 31, 1930.

M. Bickford (Simpson, Thacher & Bartlett) to Gumberg, with enclosed memorandum on Soviet convict labor, 12 December 1930, ibid.

Gumberg to Rovensky and Callahan, 19 December 1930, ibid.

Minutes of Conference in New York City on American-Russian Trade," 18 December 1930.

ARCC, "The Facts about American-Soviet Trade."


Goodrich to Bogdanov, 4 December 1930, Goodrich Papers, box 16, folder: "Russia, Amtorg Trading Company, 1926-32."

Cooper to Mills, 23 January 1931, Gumberg Papers, box 9-A, folder: "January 1 to January 31, 1931."

Gumberg to S. Stern, 11 February 1931, ibid., folder: "February 1 to February 28, 1931."

Gumberg to Raymond Robins, 11 February 1931, ibid.
66See H. C. Schilling (Wilson-Schilling Lumber Company, Parkersburg, WV) to Stimson, 1 May 1931, RG 59, 611.616-Lumber/196.

67See Gumberg to Stern, 11 February 1931. For the text of the finding, which was sent to most U.S. consuls, see RG 59, 611.616/196. See also Senator Steiwer (OR), remarks on prohibition of importations of goods made by convict and slave labor, 12 February 1931, Congressional Record, 71st Cong., 3d sess., 1931, 74, pt. 5:4694-4700.

68Lamont to Cooper, 5 February 1931, RG 40, box 694, 90034, pt. 1, Russia-Misc.

69Gumberg to Borah, 19 February 1931, Gumberg Papers, box 9-A, folder: "February 1 to February 28, 1931."

70Gumberg to Durandy, 27 March 1931, ibid., folder: "March 1 to April 30, 1931."

71W. R. Brown (assistant treasurer, Brown Company, NH), "A Menace to Forestry--Russia," Journal of Forestry (December 1930), copy in Hoover Presidential Papers, box 994, folder: "Countries--Russia, Correspondence, 1931, Jan-March."

72A. C. Dixon (president, NLMA) to Ogden Mills, 20 May 1931, RG 59, 611.616-Lumber/208.

73See Lowman memorandum to Richey, 21 November 1931, Hoover Presidential Papers, box 994, folder: "Countries--Russia, Correspondence, 1931 July-Dec," in which the assistant secretary tries to explain the department's apparently contradictory approach to Soviet lumber imports.

74Wilson Compton to Mellon, 30 November 1931, Starr Papers, box 1, folder: "Clarence Starr Papers."

75Saul R. Bertron to Lamont, 1 July 1931, RG 40, box 695, 90034, pt. 2, Russia--Misc.

76Lamont to Bertron, 2 July 1931, ibid.

77Ibid.

78Gumberg to Schley, 16 October 1931, Gumberg Papers, box 9-B, folder: "September 1 to October 31, 1931."

79ARCC, "The Facts about American-Soviet Trade."

80The ARCC report cited in the previous note marshalls much second-hand evidence implying that convict-labor is not used in the USSR, but it never denies the practice outright. Gumberg, who must have known the truth (that it did exist, and that millions were caught up in the camps),
denied it at times but usually just ridiculed the notion. Most Americans, like Cooper, claimed simply that they never saw any evidence of it.

81 Gumberg thought this was the case. See, for example, Gumberg to Schley, 7 August 1930, Gumberg Papers, box 8-B, folder: "August 1 to September 30, 1930."


83 Vystoskii (secretary, VSNKh SSSR), postanovlenie STO "O rasshireniy plana lesoeksporta na 1928-29g.," 6 September 1928, TsGAOR SSSR, f. 374, op. 1, d. 375, ll. 407-8. It is impossible to determine the relative value of the internal ruble compared to dollars. A "gold ruble" in this period equalled roughly two dollars, while standard rubles were much less valuable and declined in value rapidly throughout the First Five-Year Plan. See Alec Nove, An Economic History of the U.S.S.R., 191-203, for a discussion of the internal and external values of the ruble.

84 "Kak my uchimsia kul'turno torgovat' s zagranitsei," Pravda, 29 October 1929.

85 Vystoskii, postanovlenie STO "O rasshireniy plana lesoeksporta na 1928-29g.," 6 September 1928.

86 "Tablitsa kapital'nykh rabot 28/29g. v eksportnykh otrasiakh promyshlennosti," 30 November 1928, TsGANKh SSSR, f. 3429, op. 13, d. 2165, ll. 1-4.

87 See TsGANKh SSSR, f. 3429, op. 13, d. 2169. The import licenses are dated from 27 May 1929 to 16 August 1930.

88 Foreign and Domestic Trade Section, Planning and Economic Directorate, VSNKh RSFSR, "Litsenziya na import torgpredstvu SSSR v Amerike dlia Arkhangel'skikh lesopol'nykh zavodov Gostresta Komiles," 19 October 1929, ibid., l. 16.

89 "Vnimanie 'vsesoiuznoi lesopilke'," Pravda, 5 October 1929.

90 "Protektionistskaia bakhkhanalii v SASSh," EZh, 26 March 1930. For the import authorizations see "Vypiska iz postanovlenija po dokladu Eksportnogo Soveshchaniia pri Ispol'kome Severnogo Kraia ob itogakh eksportnoi raboty za
1928/29 god i perspektivakh vypolneniia eksportnogo plana v 1929/1930 godu ot 26-go fevralia 1930 goda," 7 April 1930, TsGANKh SSSR, f. 3429, op. 13, d. 2331, l. 23.

91 This discussion is based on Nove, Economic History of the U.S.S.R., 201-3.

92 Lobov (chairman, VSNKh RSFSR) to Figatner (chairman, VSNKh SSSR Commission on Imports), 27 April 1930, TsGANKh SSSR, f. 3429, op. 13, d. 2413, l. 49.

93 See the documents of the Figatner Commission in TsGANKh SSSR, f. 3429, op. 13, d. 2413.

94 On this see Kuromiya, Stalin’s Industrial Revolution, 143-44.

95 At this time the Soviet fiscal year 1931 ran from 1 October 1930 to 30 September 1931.


98 "Rech' Predsedatelia Vsesoiuznoi torgovoi palaty S. G. Brona na prieme vo Vsesoiuznoi torgovoi palate v chest' polkovnika Kupera" (chairman, ARCC), 2 October 1932, DVP SSSR 15:550-54. For the deleterious impact this decision had on Soviet industrialization plans see "Stenogramma soveshchaniia po kontrol'nym tsiifram na 1931 g. sovimestno s sovnarkhozami," 12-19 December 1930, TsGANKh SSSR, f. 3429, op. 13, d. 2294, ll. 58-73.

99 The greatly reduced schedule of imports, particularly of machine-tools and specialty steels, was a consequence of the anticipated completion of the fundamental projects initiated during the First Five-Year Plan. See Gosplan SSSR, Vtoroi piatiletnii plan razvitiiia narodnogo khoziaistva SSSR, vol. 1 (Moscow, 1933).

100 These figures are taken from "Vystuplenie chlena sovetskoi delegatsii I. M. Maiskogo v podkomissii po torgovoi politike Mirovoi ekonomicheskoi konferentsii," 30 June 1933, DVP SSSR 16:381-83.

101 Although from 1931 to 1932 Britain’s exports to the USSR rose from 73 million rubles to 90 million rubles. Ibid.

102 "Rost sovetskovo-amerikanskoii torgovli," ZI, 29 May 1930; "Amerikanskaia burzhuazia v razdum’e: torgovat’ s SSSR vygodno, ukruplenie SSSR—nezhelatel’no," Pravda, 22 May 1930. Interestingly, Joan Hoff-Wilson refers to the
same issue of Business Week that Pravda was reporting on. But Hoff-Wilson found the salient comment in the article to be the American journal’s recommendation "to sell the misguided [Soviet] fanatics all they are willing to pay for" (Ideology and Economics, 83). Obviously, in the minds of Soviet leaders the article carried a different message.

103 Adam Ulam, Expansion and Coexistence, 204.


107 See Gumberg to Louis Fisher, 5 August 1930, Gumberg Papers, box 8-B, folder: "August 1 to September 30, 1930." Gumberg sat in on the hearings when Bogdanov and Skvirskii were on the stand. See Bogdanov’s account of his appearance before the commission in "Soobshhenie sovetskoi pechati o zaiaavlennii predsedatelia pravleniiia 'Amtorga' P. A. Bogdanova predstaviteliam pressy," 31 July 1930, DVP SSSR 13: 437-39.

108 Amtorg Trading Corporation, Information Department, "Partial List of Errors and Discrepancies in the 'Whalen Documents'" [June? 1930], Gumberg Papers, box 8-A, untitled folder.


110 Investigation of Communist Propaganda.
"Soobshchenie sovetskoi pechati o zaiaavlennii predsedatel'ia pravleniia 'Amtorga'," 31 July 1930.

English-language summaries of several articles can be found in David Macgowan (first secretary, Riga) despatches 7144 and 7173 to Stimson, 31 July and 11 August 1930, RG 59, Confidential Post Records, Russia and the Soviet Union, Part 2, Section B [631R-U.S.], reel 27.

"Pereraspredelenie zakazov vpolne vozmozhno," ZI, 1 August 1930.

The articles appeared on 2, 3, and 4 August, in both ZI and EZh, under the common title "Khoziaistvenniki ob ugroze sryva sovetsko-amerikanskoj torgovli." Some of the articles appeared in both papers simultaneously.


USSR Council of People's Commissars, Postanovienie No. 562, 20 October 1930, "Ob ekonomicheskikh vsaimootnosheniakh so stranami, ustanavlivaishchimi osobyi ogranicitel'nyi rezhim dla torgovli s Soiuzem SSR," Pravda, 21 October 1930.

"Otvet vdochnoviteliam 'dempingovogo' podkhoda," ZI, 22 October 1930.


Correspondence between Oddie and Treasury officials, as well as materials from the convention of the American Manganese Producers Association, are in Congressional Record, 71st Cong., 3d sess., 1931, 74, pt. 7:6430-6449.

See the statement of Thomas J. Doherty (Tariff Counsel, American Iron and Steel Institute) enclosed in ARCC, "The Facts about American-Soviet Trade."

A copy of the bill is located in W. G. Carruth (special assistant, Senate Committee on Finance) to Stimson, 20 January 1931, RG 59, 611.616/180. Regarding Soviet manganese, the Treasure finally decided in late February 1931 that "dumping" had not taken place and refused to issue any finding (Gumberg to Robert S. Alter, 2 March 1931, Gumberg Papers, box 9-A, folder: "March 1 to April 30, 1931."

Ways and Means Committee Chairman Hawley had set the investigation of Soviet coal mines in motion in mid-June 1930. See U.S. Department of Commerce, Labor in the Coal Fields of Soviet Russia, Report to the House Committee on Ways and Means, 71st Cong., 3d sess. (20 December 1930), and U.S. Tariff Commission, the Anthracite Coal Industry of Soviet Russia, Report to the House Committee on Ways and Means, 71st Cong., 3d sess. (19 January 1931), copies of both in RG 81, Box BC-2, folder: "Anthracite Coal Industry of Soviet Russia (Sec. 332)."


Plotkin (deputy director, Import Sector, USSR Commissariat of Foreign Trade) to VSNKh RSFSR, 20 December 1930, TsGANKh SSSR, f. 3429, op. 13, d. 2416, l. 21.

Even Soviet lumber trusts opposed curtailing (their own) purchases in the United States. See, for example, "Predsedatelia pravleniia Vsebumproma VSNKh RSFSR chlenom kollegii Markomtorga SSSR tov. Figatneru," 23 July 1930, ibid., d. 2426, l. 271.

Foreign Section, VSNKh SSSR, memorandum to the Presidium of SNKh SSSR, 13 November 1930, ibid., d. 2412, l. 9.

Krzheminskii (director of Moskhim) to Savitskii, 1 January 1931, ibid., d. 2400, l. 260.

For specific examples of how Soviet factories and
trusts evaded or argued their way around the government’s policy see, for example, K. Strievskii (chairman, VSNKh RSFSR) to the Presidium of VSNKh SSSR, 14 November 1930, TsGANKh SSSR, f. 3429, op. 13, d. 2412, ll. 4-5; Promekspo mem to VSNKh SSSR, 1 June 1931, ibid., d. 2400, l. 16; and V. V. Segal’ (chief engineer, Supply and Foreign Policy Section, VSNKh RSFSR) report "Ob obsledovanii ispol’zovaniia importnogo obrudovania na 4-kh predpriiatiiakh Nizhegorodskoi promyshlennosti," 28 August 1931, ibid., d. 2430, ll. 19-24.

135See, for example, the editorial "SASSh i SSSR" in Pravda, 14 December 1930; and "Zaiaavljenie neofitsial’nogo Predstavitel’ia SSSR v SSHA B. E. Skvirskogo v komissii Kongressa," DVP SSSR 13:724-28.

136See, for example, "Razgovory o ‘dempinge’--tol’ko predlog dla organizatsii ekonomicheskoi blokady SSSR," Pravda, 30 October 1930; "SSSR imeet pravo na svoiu doliu v mirovom eksporte," ibid., 22 November 1930; and "Postanovlenie Soveta s”ezdu gosudarstvennoi promyshlennosti," ibid., 10 December 1930. One Soviet commentator wondered what the difference was between Soviet "dumping" and the U.S. practice of selling subsidised grain abroad for less than cost. See "Amerikanskii demping," Ezhegodnik, 20 March 1931.


139In addition to the sources cited in the previous note see "90 stranits idiotizma i naglosti: Amerikanskie tverdoloby i ikh reformistskie lakei pytaiutsia sorvat’ torgovye otnosheniia mezhdu SSSR i SASSh," Pravda, 20 January 1931; and "Amerikanskie tverdoloby prizyvajut k ekonomicheskomu boikotu SSSR," ZI, 15 February 1931.

140Even a relatively sophisticated and knowledgable observer such as Skvirskii, with extensive exposure to American government and business circles, thought such a tactic would work because of "Wall Street’s" supposedly dominant influence over the U.S. government. See his letters to Litvinov of 20 November 1930 and 31 January 1931. See also "Irresponsible Attack on the American-Soviet Trade," translation of a 14 February 1931 editorial
in Izvestija, enclosed in Coleman (Riga) des. 7514 to Stimson, 20 February 1931, RG 59, 611.616-Lumber/181.
CONCLUSION

When Foreign Affairs Commissar Litvinov arrived in America to discuss with President Roosevelt normalizing relations between the United States and the Soviet Union, he noted how the people of his country had been "inspired by the examples and methods" of Americans. More than any other people, Americans had "bent the forces of nature to the needs of mankind" and rapidly created "the most powerful and technically progressive state" the world had ever seen. "Such phrases as 'American technique,' 'American tempo,' 'American scale,' and 'American practicality' are especially popular in my country," Litvinov informed his audience of newspaper correspondents, and he recalled how "quite a few" Americans had brought these phrases to life in the USSR by lending Soviet industry their "valuable experience" during the First Five-Year Plan. This legacy had created a "firm basis for scientific, cultural, and economic cooperation in the interests of both our countries."¹

Adam Ulam is probably right to assert that for Soviet policymakers in late 1933, the main benefit of establishing relations with the United States was that the step might lead Washington to adopt a more active role in
counterbalancing an aggressive Japan in the Far East.² Despite Litvinov's comments, it is doubtful that officials in Moscow held out much hope for expanded cultural and economic links with America. Certainly the "legacy" that Litvinov referred to existed only in the past and could not be revived. Although Soviet planners, industrialists, and engineers on a personal level might have retained an admiration for and commitment to "American technique" and other attributes of the American way of work, the official sponsorship of such attitudes had ended over two years before Litvinov made these remarks. Countless speeches and newspaper articles exhorting the people who planned and managed Soviet industry to study and adopt the habits of American workers and engineers lay like scattered and bleached bones along the trail the USSR blazed toward its industrialized future.

It should be clear from the preceding narrative that, on one level at least, Soviet officials on the eve of the First Five-Year Plan genuinely desired to transplant the technique as well as the technology of American industry to their own industrial economy. Part of this desire grew out of the Bolshevik belief that a socialist industrial society had no choice but to build on the achievements of the preceding capitalist order. Because America represented the "highest stage" of capitalist development, it made sense to select liberally from American achievements. But a simpler element of sheer admiration seems to have been involved as well. America had entered the Russian popular
imagination as the epitome of an industrially advanced civilization long before the October Revolution occurred. Lenin and his colleagues had inherited this perception, and from the very beginning of their rule they pointed to America as the nation they had to "catch up with and surpass." In this sense Litvinov was right to say that his people had been "inspired" by the American experience. He would have been closer to the truth, however, had he identified his party colleagues as those most inspired, for it was the top echelon of the party more than any other Soviet group that looked to America as a source of inspiration and material help.

Ironically, it was that same stratum of high party officials who, through their emphasis on centralized superplanning and the achievement of crude production targets, thwarted the attempt to transfer American technique and American attitudes to Soviet industry. As Nicholas Lampert has pointed out, the First Five-Year Plan did not establish any mechanisms for ensuring "an orderly coordination of the production processes of different economic sectors." Instead, it merely established priorities (in this case, the creation of heavy industry and its necessary infrastructure), leaving it up to the party and certain state or police agencies to devise ways to ensure the plan’s execution. Within the framework of the plan, which called for rapid progress in every sector of the economy, Soviet industry rapidly fell into a "state of recurrent crisis, which was both cause and consequence"
of the system of planning. Shortages and bottlenecks led to frequent halts in construction and production, which provoked party and police intervention to correct the situation, which in turn reinforced the tendency to ignore the plan in favor of focusing attention on priorities.\textsuperscript{3}

At the center of this contradictory picture stood the enterprise directors and their administrative and technical staff--those who held ultimate responsibility for carrying out the provisions of the plan. For these men the situation was rife with dangers. On the one hand they had a great deal of freedom from Moscow's heavy hand: the emphasis on achieving certain targets of gross output allowed them to ignore such factors as cost-effectiveness, quality production, working conditions, and the introduction of innovative techniques. As long as they came close to the targets set for them above, the methods they used would either be ignored or forgiven. As we have seen, in practice this local control over production helped offset the center's theoretical control over all aspects of the economy. Factory directors and staff concentrated on the results of production, not the methods, and they could be confident of support from their ostensible superiors in trusts and industrial commissariats in Moscow, whose own positions depended in large part of the success of their industrial fiefs. The result was a confusing array of frequently contradictory demands flowing both ways along the lines of authority, with trusts and commissariats demanding specific results and factories in turn demanding
specific resources to help them achieve those results. Complementing this set-up, moreover, was a parallel network of party administration, with local party officials often closely allied to enterprise directors and using their connections in Moscow to aid their industrialist colleagues' tasks.

But if factory directors and the specialists they commanded had a large measure of freedom to implement their assigned tasks, they also lived and worked under a cloud of uncertainty that militated against the exercise of that freedom. To view their situation from another angle, we might say that their freedom to pursue any and all methods in order to achieve their targets trapped them in a pattern of perpetually illegal activities, which in the Soviet Union of the late 1920s and 1930s was a perilous situation indeed. It is important to remember that, throughout the Five-Year Plan, the great majority of trained specialists working in Soviet industry had begun their professional careers under the tsarist regime, and despite a concerted Soviet effort to train "red specialists" during the plan, these "bourgeois specialists" formed the bedrock of skills upon which Soviet industry would be built. To a man like Stalin and his political allies, this was a potentially dangerous state of affairs: "Soviet power was under the 'technological yoke of the Tatars.'"

In 1928 this threatening cloud broke over the heads of the Soviet technical intelligentsia, unleashing a storm of arrests, trials, and convictions that swept the industrial
landscape clean of scores of directors and engineers. The Shakhty Affair of 1928 and the Industrial Party Affair of 1930 involved allegations of "wrecking" and industrial sabotage by top administrators in the economic apparatus and directors and engineers in the field. The veracity of the charges is arguable—most scholars agree that they were greatly exaggerated and that the reasons for the ensuing trials and convictions revolved around the party's need to find scapegoats for the failures of industrialization policy.  

Perhaps more important, a deeper, more "rational" purpose underlay these and other campaigns against the administrative and technical elite of Soviet industry. In brief, these disruptive campaigns were part of a politically inspired but economically disastrous offensive designed to shatter the professional identity and group loyalty of the technical intelligentsia, replacing it with loyalty to society and the socioeconomic system as determined by the party. By doing so, the party hoped to force this important class of experts to enlist wholeheartedly in the campaign to fulfill the party's economic agenda and to accept the party's methods for fulfilling that agenda. Engineers and other specialists had to abandon their "objective" beliefs, the professional ethic which held that specialized, scientific knowledge was apolitical and could be applied without regard to the "subjective" demands of political and socioeconomic systems.  

Rather than pointing to "rational" measures to
define the limits of the possible, the Soviet technical elite would now have to evince the same sort of "subjective enthusiasm" that the party demanded from its members in the industrialization drive. The same sort of enthusiasm and willpower that had won the Civil War in the face of overwhelming odds would now be employed to achieve victory on the "economic front." Whether the campaign achieved its results is questionable, but it did undermine the group's authority as holders of specialized and critically important skills, and it merged with the uncertainties involved in executing the plan to make the test of "loyalty" an exceedingly arbitrary one.

Seen in this light, it is no wonder that American technique fell on barren ground in Soviet industry. Soviet politicians and planners extolled the American emphasis on rational use of resources, strict attention to details, eliminating waste, reducing costs, and tapping hidden, idle resources. But they cut the ground out from underneath those who would have taken such an approach by binding them to an unrealistic plan, establishing measures of success that had nothing in common with such values, and imposing penalties (and criteria) for failure that made innovation a risky, almost foolhardy business. This is not to question the sincerity of the Soviet leadership's desire to transplant American technique to Soviet industry; after all, contradictory goals are not always perceived as such by those who adopt them. But two of the goals that Soviet officials set for their industrial economy were indeed
mutually exclusive. One was to industrialize their economy as quickly and completely as possible, while another was to create an industrial economy that in many ways mirrored the efficient and innovative American one. As the Five-Year Plan accelerated into hothouse industrialization and the economy careened from sectoral crisis to sectoral crisis, the piecemeal interventions to ensure progress in priority sectors stood as unspoken proof that the first goal took precedence over the second.⁷

Although tracing the course of the First Five-Year Plan is to economics what reading the medical records of a manic-depressive must be to medicine, we should not lose sight of the important successes that Soviet industry achieved from 1928-32. Official Soviet accounts claim that industrial output doubled during these years.⁸ Western scholars have dismissed this as an exaggeration, but they generally agree that during the Second Five-Year Plan, when the pace of development slowed and the great projects initiated during the First Five-Year Plan came on line, Soviet industrial production increased enormously.⁹ It was the First Five-Year Plan that laid the industrial basis for the Soviet victory in World War II and Soviet "threat\" in the Cold War.

As this narrative shows, moreover, on the purely practical level of gaining access to American technology Soviet leaders enjoyed no small measure of success, although here too they had to settle for less than they would have hoped. By the time the First Five-Year Plan hit
full stride in 1929, most American businessmen had overcome their doubts about dealing with the USSR. Moreover, Soviet economic agencies were delighted to discover that American manufacturers on the whole were much more willing to share their design and production know-how than European manufacturers. This American openness undoubtedly stood behind Soviet officials' expressed preference for dealing with American business, and it explains why many of the technical-assistance agreements that American firms concluded with Soviet agencies provided for the exchange of designs, patents, and personnel.

The Soviets were never able, however, to overcome the American reluctance to extend long-term credits to Soviet purchasing agencies. The Depression might have prompted American businessmen to look more favorably upon Soviet orders, but it did not make them more willing to grant better, easier terms. The U.S. government's prohibition on the flotation of Soviet loans in America undoubtedly was a factor at work here, but it cannot explain this reluctance on its own. It seems that, no matter how eager they were to sell their wares to the Soviets, and no matter how much some might wonder if the Five-Year Plan meant that Moscow had abandoned communism, most American businessmen retained some doubts about the efficacy of the Soviet "experiment" in general and the plan in particular. Even the 1928 agreement between Amtorg and IGE, which Moscow officially trumpeted as a break in the American "credit blockade," provided for credits of only two years' duration. Just as
important, IGE financed those credits from its own resources, something the vast majority of small-scale manufacturers could not do. It is a measure of the USSR's desire to deal with American business that the volume and value of U.S.-Soviet trade steadily increased through 1930 as quickly as they did, even though manufacturers in some other countries, particularly Germany, could offer extended credits backed by government guarantees. Records from the State and Commerce departments reveal that American firms were well aware of this comparative advantage enjoyed by some of their European competitors, but they betray no indication that the firms pressed Washington to level this portion of the playing field.

Businessmen were willing to take a more active stand, however, when the actions of the U.S. government threw even greater obstacles in the way of Soviet-American trade. The controversy over imports of Soviet goods produced by forced and convict labor provides another example of how U.S. firms can successfully fight government policies that hurt their interests directly. But this particular battle gives no grounds, I believe, for discerning a larger pattern in the relationship between U.S. business and federal officials. The ARCC, which led the battle against efforts to slap an embargo on Soviet goods, represented some of the largest American businesses operating competitively on both the domestic and international markets. But it also spoke for many small American firms with no exporting tradition whatsoever. These disparate firms had nothing in common
except for the fact that Amtorg had sought them out and bought their wares, and their desire to maintain that connection was the only discernible factor uniting them in their stance against an embargo. To characterize them all as "traders," as Hoff-Wilson does, is to generalize from a very specific and temporary alliance of convenience. At the very least, much more research would have to be done into the nature of the firms comprising the ARCC and their markets before we can conclude that businessmen who wanted to keep the U.S. market open to Soviet goods were also in favor of free trade generally or were active sellers on the international market.

Soviet officials, meanwhile, fell into a trap of their own making when they sought to play upon the patterns of interests that they believed existed between the American business community and the federal government. To be sure, they showed a keen awareness of the disparate interests of "big business" and "small shopkeepers" regarding access to foreign markets and protection of the domestic market. But they could not escape their ideological predisposition toward viewing "Wall Street" as the key determinant of U.S. government policy. It was this belief that partially inspired the Soviet decision to divert purchases from the American to the European market: with its profitable sales to the USSR in jeopardy, "Wall Street" would force Washington to put trade relations with Moscow on a firm and predictable footing, and as a result Moscow could resume its dealings with American firms, perhaps with the added
attractions of recognition and long-term credits. Not until 1933 did recognition come to pass, and at that stage the idea of American government guarantees was only being discussed, eventually to be dropped.

In the end, Soviet officials had to settle for half a loaf; specifically, for a few brief years in which they were able to acquire the fruits of American technique but unable to successfully transplant the seeds of that technique to their own soil. The political and economic climate, which they themselves had created, was simply too hostile. Even without the rapid tempo, crisis mentality, and police supervision, the peasant masses that formed the bulk of the new Soviet industrial proletariat might have thwarted the effort, at least in the short run, before they had been acclimated to the rhythms of industrial life. Nonetheless, it is likely that Soviet officials looked back on their effort to repeat the American experience with some satisfaction. Thanks in part to the technical-assistance agreements with American firms and the efforts of hundreds of American engineers and other specialists, the Soviet Union laid the foundations for an industrial economy that would help the country withstand the Nazi onslaught and then catapult the country to superpower status.

Still, the oft-repeated goal of the First Five-Year Plan was to allow the USSR to "catch up with and surpass" the leading capitalist countries. Victory in 1945 and the stunning triumphs in space during the early Cold War lend weight to the conclusion that, in some areas at least, the
Stalinist system of planning did indeed enable the USSR to catch up with and surpass the West. How ironic, then, that this very same system would be primarily responsible for the economic sclerosis of the 1980s, and that it would ultimately suffer the very fate its creators had promised for the capitalist West.

2Ulam, Expansion and Coexistence, 212-14.


4Kuromiya, Stalin's Industrial Revolution, 52.

5Ibid., 157-72.

6Lampert, The Technical Intelligentsia, 38-59; Bailes, Technology and Society under Lenin and Stalin, chaps. 3, 4; Kuromiya, Stalin's Industrial Revolution, 12-17, 50-77.

7It is also quite possible that Stalin and his closest colleagues never saw the two goals as incompatible, although I have no way to test such speculation.

8Gosplan, Itogi vypolneniia piatiletnego plana razvitiia narodnogo khoziaistva SSSR (Moscow, 1933), 255.

9This literature is best summed up in Kuromiya, Stalin's Industrial Revolution, 287-88.


11This is the upshot of Moshe Lewin's argument in "Russia/USSR in Historical Motion." See also Herbert Gutman, "Work, Culture, and Society in Industrializing America, 1815-1919," American Historical Review 78 (June 1973): 531-87.
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