SOVIET INDUSTRY GETS AMERICAN AID

Contracts Involving Millions
With Industry Here
Are Disclosed.

FORD COOPERATION LAUDED

Details of Soviet contracts with more than fifteen American concerns, involving millions of dollars, were made public yesterday in a joint statement issued by Valery I. Meshlauk, vice chairman of the Supreme Economic Council of the Soviet Union, and Saul G. Bron, chairman of the board of the Amtorg Trading Corporation. 261 Fifth Avenue.

Among the outstanding of these contracts is the one with the Ford Motor Company, signed at Dearborn, Mich., last Friday, at which time it was announced that this agreement calls for the purchase of \$30,000,000 worth of Ford cars and parts by the Russian interests within the next four years. The other contracts call for designing of plants, technical assistance and exchange of patents.

The statement issued yesterday at the offices of the Amtorg Trading Corporation which was one of the parties to Ford Motor Company contract, said that "it is significant that American engineering skill is being utilized on many of the principal Soviet industrial projects now under way."

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4.31 From the New York Times. June 4, 1929

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A COSMOPOLITAN PROJECT

At the start of the First Five Year Plan, Soviet engineers came to visit Albert Kahn Co., Inc., of Detroit, the famous industrial architects who had built Henry Ford's River Rouge plant as well as factories for General Motors, Packard, Oldsmobile, Chrysler, and De Soto.

It was in 1928 ... [that] the most extraordinary commission ever given an architect came in the door unannounced. In that year a group of engineers from the U.S.S.R. came to the Kahn office with an order for a \$40,000,000 tractor plant [at Chelyabinsk], and an outline of a program for an additional two billion dollars' worth of buildings. About a dozen of these factories were done in Detroit; the rest were handled in a special office with 1,500 draftsmen in Moscow. \(^1\)

According to Anthony Sutton, the Cold War historian who documented this case, "The 'outline of a program' presented to the Kahn organization in 1928 was nothing less than the First

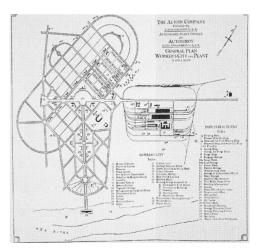
and Second Five-Year Plans of 'socialist construction'." In authorizing this act of extreme cosmopolitanism, Stalin envisioned a U.S. capitalist firm as designer of Soviet socialist industrialization.

A factory to produce Fordson tractors was prefabricated in Detroit by the Albert Kahn Company and shipped to Stalingrad in 1929, where it was assembled under the direction of American engineers. A contract "under which the Kahn Company became consulting architects to the Soviet Union" was signed in early 1930. The Kahn group undertook design, architectural, and engineering work for all heavy and light industrial units projected by Gosplan. Kahn's chief engineer in the U.S.S.R., Scrymgoeur, was chairman of the Vesenkha building committee. Scrymgoeur wrote:

The Albert Kahn unit was engaged to control, teach and design all light and heavy industry. ... By the end of the second year we controlled in Moscow, and from Moscow branches in Leningrad, Kharkov, Kiev, Dniepropetrovsk, Odessa, Sverdlovsk and Novo-Sibirsk 3,000 designers and completed the design of buildings costing (these are Soviet figures) 417 million rubles. ⁷

The Soviets seem to have taken advantage of competitive bidding, however, and the Albert Kahn Company did not retain a monopoly. Henry Ford, already a figure of heroic proportions in the Soviet Union, was included in the Soviet plan, given six months to design an assembly line

for the Gorky Auto Plant to be built at Nizhni Novgorod. 8 The agreement, signed on May 31, 1929, was for Ford to furnish technical assistance (until 1938) for the plant, which was to be completed by 1933 and which would produce the Model A (called by the Soviets Gaz-A), the Ford light truck (GazAA), and the heavy truck (AM0-3). Soviet engineers were to be provided facilities at the River Rouge factory for the study of Ford production methods. 9 In the economically depressed years of the early 1930s, U.S. firms and personnel were grateful for the Soviet business. ¹⁰ "Ford was happy to sell \$30 million worth of parts and throw in invaluable technical assistance for nothing. Technical assistance in production of axles, tires, bearings, and other items required payment but, as the marginal cost to American companies was slight, the Soviets reaped a gigantic harvest of technological



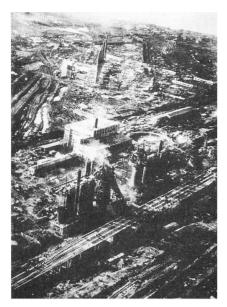
4.32 General Plan for Worker's City and plant, Autostroi, Nizhni Novgorod, prepared by the Austin Company under technical assistance contract of August 1929.



4.33 Steel plant at Gary. Indiana (construction begun in 1906 by Freyn and Co.), that provided the model for USSR's Magnitostroi. Photo ca. 1950.

knowhow for almost no outlay."¹¹ The Austin Company of Cleveland designed not only the plant at Nizhni Novgorod but the "Worker's City" that surrounded it, complete with community housing, nursery, public bath, Palace of Culture, and crematorium.¹²

In mid-1929 the A.J. Brandt Company of Detroit undertook an extensive two-year reorganization and expansion of Amo [the automobile plant in Moscow].... The production equipment was entirely American and German. In late 1929 Amtorg [the Soviet trade organization in New York] placed an order on behalf of Amo with the Toledo Machine and Tool Company for \$600,000 of cold-stamping presses. In 1932 an order was placed with Greenless Company of Rockford, Illinois for multi-cylinder lathes. In 1936 a second technical-assistance agreement was concluded for Amo with the Budd Manufacturing Company of Philadelphia and the Hamilton Foundry and Machine Company of Ohio to produce 210,000 chassis and bodies per year for a new ZIS-model automobile. ¹³



4.34 Steel mills at Magnitostroi under construction by Arther McKee and Co. Photo ca.1930

The technology transfer included trained personnel high up in the Soviet economic administration: "Soyuzstroi [the All-Union Construction Trust] had responsibility for about one-quarter of new construction [in the Soviet Union] until 1933 when it was broken into smaller units attached to individual combinats. The Director of Soyuzstroi was Sergei Nemets, formerly an engineer with the Philadelphia construction company of Stone and Webster, Inc. The Chief Engineer of Soyuzstroi was Zara Witkin, whose early projects included the Hollywood Bowl and several large Los Angeles hotels." ¹⁴

Even the Soviet "Dream City" of Magnitogorsk was built according to design specifications created in the United States and supervised by a team of American engineers. ¹⁵ In March 1930, Arthur McKee and Co. of Cleveland won the foreign bid to turn the building site at Magnitogorsk, an iron lode in the middle of an empty steppe in southern Russia, into the largest mining-energy-chemical-metallurgical complex in the world. It was to be modeled after the U.S. Steel

Company's plant in Gary, Indiana, an integrated design that provided a linear flow from raw materials to finished products. ¹⁶

McKee undertook to design the entire steel plant, including all auxiliary shops and the iron-ore mine... [and to be] responsible for directing work on the site until the factory and mine were put into operation, for consulting on equipment orders, for building an electric power station and a dam, and for training Soviet engineers both at the site and in the United States. The Soviet government agreed to pay McKee 2.5 million gold rubles. ¹⁷

The fact that the United States had no diplomatic relations with the USSR was an obstacle to doing business. Germany, which had recognized the Soviet Union and established trade relations with the Rapallo Treaty in 1922, continued to provide serious competition until Hitler came to power in 1933-not coincidentally the year that the United States finally granted recognition to the Soviet regime.¹⁸

Although design and layout during this period [1929-1932)] was American, probably one-half of the equipment installed was German. Of this, a large amount was manufactured in Germany to American design on Soviet account. In quantity, American-built equipment was probably second and British third.... Cement mills

were largely from one firm in Denmark, ball bearings from one firm in Italy and another in Sweden, small ships from Italy, and aluminum technology from a French company. ¹⁹

Sutton concludes that "for the period from 1930 to 1945" Soviet technology was Western technology" converted to the metric system." The fact that Stalin's First and Second Five Year Plans amounted to the largest technological transfer in Western capitalist history was not something that either side advertised, nor did they care to remember this collaboration during the Cold War years. Although part of the public record, it remained an embarrassment for both the United States and the Soviet Union as superpower enemies.

And there is more to the story.

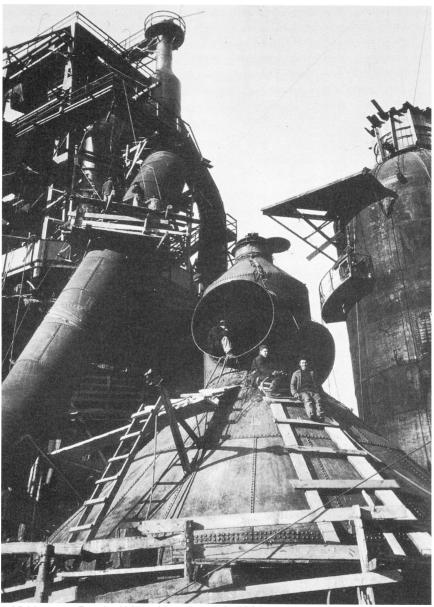
Payment for the technology transfer demanded hard currency. Soviet grain exports fell precipitously during the early 1930s, due to the intense famines caused by forced collectivization. The Soviet government found an alternative commodity in the European oil paintings and "household goods" of the aristocracy that had been confiscated after the October Revolution. In 1928 the Soviet government embarked on a major effort to sell Russian art abroad in order to gain hard currency to pay for the imports of the First Five Year Plan. The story of this extravagant international exchange was not documented until 1980. In the words of its historian, Robert Williams, "American buyers have been as reluctant to discuss their purchases as the Soviet government has been to discuss (or even admit) their sales." Yet the Soviet decision was clearly made at the top: "Tractors were needed more than Titians, Fords more than Faberge." Millions of dollars' worth of masterpieces of art and thousands of tons of antiques-jewelry, icons, porcelain, rare book manuscripts, Easter eggs, silver, brocades-were sold abroad, and the largest buyers were U.S. citizens.

In the twelve months between April 1930 and April 1931 alone, Andrew W Mellon, Secretary of the Treasury of the United States, bought close to seven million dollars' worth of Hermitage paintings from the Soviet government, a figure that equals half of what the Soviet Union paid in hard currency for imports during that year and "roughly one third of the official total of Soviet exports to the United States in 1930." ²⁴ Included were two Renaissance masterpieces of Jan van Eyck, five Rembrandts, four Van Dycks, two Halses, as well as paintings by Botticelli, Chardin, Perugino, Poussin, Rubens, Titian, Velásquez, and, the most expensive purchase, Raphael's *Alba Madonna*, for which Mellon paid almost 1.7 million dollars, at the time the highest price ever paid for a single painting. ²⁵ These purchases were kept secret, laundered through a complex web of American entrepreneurs and Soviet officials, at the heart of which were M. Knoedler & Company (art gallery and dealer) and Amtorg (the Soviet trade representative), both based in New York City. ²⁶ Knoedler was owned by the entrepreneur Armand Hammer, whose pencil and asbestos factories in the Soviet Union were nationalized in 1930 but who, with his special Soviet connections, turned to selling Russian art objects through

department stores in the United States, including, in January 1933, Lord and Taylor.²⁷

Because the Soviet Union lacked diplomatic recognition in the United States, Amtorg, the delegation for the Commissariat of Foreign Trade, had to maintain the legal fiction of being a private corporation of the state of New York, where it was based.²⁸ As for the Secretary of the Treasury's part in the major deal, "for five long years there were only rumors of such a purchase and denials by Mellon."²⁹ According to his lawyer, "Mr. Mellon wanted to keep the thing a surprise until the right moment. It probably would not have been good politics for the Secretary of the Treasury to spend millions for rare paintings at a time when the government was swamped with unemployment, bank failures, and general distress." 30 The "right moment" was forced upon Mellon in 1935 when, for years suspected of a conflict of interest, he was charged by the Internal Revenue Service for failing to pay over three million dollars in taxes in 1931.31 "At issue was the taxable status of Andrew Mellon's paintings [donated to his own charitable trust] which he claimed as a deduction on his 1931 income tax return."32 Only after Mellon had written to President Roosevelt that he planned to bequeath his paintings to the government and offered to build a museum for them did the Board of Tax Appeals dismiss charges of tax fraud. ³³ "In March 1937, five months before Andrew Mellon's death, President Roosevelt accepted his donation of this entire art collection and a National Gallery of Art in which to house it in the name of the American people."34 With the opening of the National Gallery in Washington, the Hermitage paintings were once again on public display as "nationalized" property-this time on the other side, and in the capitalist manner.

The British art dealer Joseph Duveen, testifying at Mellon's trial, criticized the Soviet government for its policy, as a result of which "the Hermitage is no more the greatest collection in the world, it has gone to pieces. I do not see how a nation could sell their great pictures of that kind [Art objects] are not a commodity. You cannot buy a picture like you buy a load of copper or a tin mine." ³⁵ From the Soviet side the argument was not convincing. A Soviet museum curator was quoted as saying that such sales were a perfectly acceptable socialist method to "turn diamonds into tractors." There was a strange poetic justice in this economic circuit. Mellon, who made an early fortune from steel mills in Pittsburgh, spent it on oil paintings the sale of which enabled construction of the steel mills at Magnitogorsk. ³⁷ Thus the profits of capitalism (surplus value withheld from the wages of American workers) moved (via the Mellon family fortune) to finance (via the capitalist firm of McKee Construction Company) the building of technologically advanced socialist factories, an increase in what Marx called "constant capital" that in turn increased the value of Soviet labor. Meanwhile, in the counterdirection, cultural "treasures" that had been owned by the Russian aristocracy and nationalized by the Bolsheviks became (via Mellon's "philanthropic" cover-up of tax evasion) the property of the United States government-and the American public received socialized culture in the form of a national museum. How should this strange merging of supposedly antithetical systems be reckoned? What is the proper accounting, when the sale of one Raphael (at 1.7 million gold dollars) ³⁸ buys more than half of the design of one Magnitogorsk (at 2.5 million gold rubles), ³⁹ which translates into jobs for tens of thousands of Soviet workers, and



4.35 Margaret Bourke-White, Magnitogorsk, 1931



4.36 Raphael, Alba Madonna, at the National Gallery, Washionton, D.C.

The General Form of Value: Relative Design Costs

1 Raphael painting = ½ Magnitogorsk ⁴⁰

the production (by 1938) of millions of tons of finished metal?⁴¹ How does one make political sense out of an economic exchange whereby the U.S. Secretary of the Treasury uses his private millions to "build socialism" in Stalin's Russia-at the same time as the output of steel mills in the United States is falling precipitously due to a Great Depression that, to Stalin's delight, affects capitalism alone?⁴² How does one square with ideological rhetoric the irony of the fact that pre-1929 production levels in the United States were not recovered until World War II when, to Stalin's surprise and against the intent of the Nazi-Soviet nonaggression pact, the steel mills of Magnitogorsk and Pittsburgh, again at full throttle, found themselves producing weapon materials for the same warring side?

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¹ Report of Albert Kahn Co., Inc. (1939), cited in Anthony C. Sutton, *Western Technology and Soviet Economic Development*, 3 vols. (Stanford: Hoover Institute Press, 1968-1973), vol. 2: *1930-1945* (published 1971), p. 248. Nineteen percent of all architect-designed industrial construction in the United States in the 1930s (totaling \$800,000,000) was the work of the Albert Kahn Company (ibid., pp. 250 and 345).

² Ibid., p. 248. "Gosplan (USSR's State Planning Commission] had decided upon those sectors it wanted developed and their approximate capacities. No foreign influence has been found at the Gosplan level. These plans were then turned over to the Albert Kahn Company for conversion into production units." (Ibid., p. 249.)

³ The First Five Year Plan self-consciously adopted the "American option" of industrial development which put a priority on mining, metallurgy, and machine-building. Again, the reasoning presumed an invariable historical course: "If indeed we hope to catch up with and surpass American industry, we must absorb those technical achievements that exist in America;" wrote Sergo Ordzhonikidze, senior party official at Vesenkha (Supreme Council of the National Economy), cited in Kendall E. Bailes, *Technology and Society under Lenin and Stalin: Origins of the Soviet Technical Intelligentsia, 1917-1941* (Princeton: Princeton University Press, 1978), pp. 342-343.

⁴ "All the structural steel for the plant was purchased in the United States. The speed with which 5700 tons of steel were erected into a framework constitutes a record in Russia, all the more remarkable in view of the fact that the work was done by Russian laborers with little previous experience in this kind of construction." Bourke-White, *Eyes on Russia*, p. 124.

⁵ Sutton, Western Technology and Soviet Economic Development, vol. 2, p. 250.

⁶ Ibid., p. 434.

⁷ Cited in ibid., p. 251. Sutton's research, carried out with the support of the politically conservative Hoover Institute, provides evidence for this and other technology transfers from the West to the Soviet Union. Another account records: "Days were given over to an on-the-job training program in actual factory design. In the evening, classes were given by the Kahn staff. By the time the branch office (in Moscow] was dissolved and the staff sent home in March 1932, 521 plants large and small had been designed, and over 4,000 Russian personnel had participated in the training program." (Grant Hildebrand, *Designing for Industry: The Architecture of Albert Kahn* (Cambridge: MIT Press, 1974], p. 129.)

⁸ Stephen Kotkin, Magnetic Mountain: Stalinism as a Civilization (Berkeley: University of California

Press, 1995), p. 407.

¹⁶ Ibid., p. 402. Kotkin points out the similarity as well in the myth of turning "vacant" territory into an industrial landscape. He cites a contemporary's description of Gary: "Until industry waved its magic wand over the land upon which the vast steel mills of Gary now stand, the place was none other than a bleak, sandy waste, a strip of prairie with virtually no habitation." Of course, both these "empty spaces" contained ecological systems that were permanently devastated by the "miracle" of development (ibid., p. 427n.).

¹⁷ Ibid., p. 43. "McKee was to design everything to be as large as possible, allow[ing] for future expansion. The Soviet authorities gave McKee two *months* to submit complete designs for the largest and most advanced iron and steel plant outside the United States" (ibid., p. 44). "A list of equipment suppliers for Magnitogorsk in an official Soviet publication reads like a 'who's who' of capitalist engineering firms: Otis Elevator, General Electric, Demag, AEG, Krupp, Siemens, Trailer, and so on" (ibid., p. 403n). Freyn Engineering Company, designers and builders of the U.S. Steel plant in Gary, Indiana, had been approached by the Soviets in 1929 but lost the bid, perhaps because Freyn's standard design for blast

⁹ Sutton, *Western Technology and Soviet Economic Development*, vol. 1: 1917-1930 (published 1968), pp. 246-247.

¹⁰ In 1929, "Amtorg (the Soviet trade organization in New York] suddenly tripled its orders from American companies.... The stock market collapse of late 1929, with its bank closings and massive unemployment, meant that from the American point of view, trade with Russia became even more significant. In a depressed market, the Soviet government was a welcome buyer, and competition for Amtorg orders became fierce in the first half of 1930. In many cases Soviet purchases saved American jobs. Soviet-American trade reached a high of \$114,399,000 that year. "Robert C. Williams, *Russian Art and American Money*, 1900-1940 (Cambridge: Harvard University Press, 1980), p. 167. "Most [industrial] goods were produced on credit from American firms.... American business pressed for recognition" of the Soviet Union (ibid., p. 16).

¹¹ Sutton, Western Technology and Soviet Economic Development, vol. 1, p. 248.

¹² Ibid., vol. 1, p. 347; vol. 2, p. 258.

¹³ Ibid., vol. 1, p. 178

¹⁴ Ibid., p. 254. A Soviet source reported in 1936 that some 6,800 foreign specialists of all types worked in Soviet heavy industry in 1932. Another Soviet source reports that 1,700 American engineers worked in heavy industry (ibid., vol. 2, p. 11). "In 1940 we find individual American engineers in such high regard that the Soviets appealed through diplomatic channels to ensure continuation of their work in the Soviet Union" during the war (ibid., p. 12). John Calder, at one time connected with the River Rouge plant, worked as chief construction engineer at several Soviet industrial sites and was awarded the Order of Lenin; the hero of Nikolai Pogodin's play *Tempo* is known to have been modeled after him (ibid.).

¹⁵ Dubbed the "Dream City" by the Soviet press, it was Magnitogorsk that provided the true Soviet counterpart to Hollywood and Los Angeles in the 1930s. Both were the destinations of optimistic youth seeking a new life and success according to hegemonic beliefs in progress. Each was a dreamworld, a "place of miracles" (for constructing socialism and the "new man" with guaranteed employment in one case; for becoming rich and famous as an individual success in the other). In both cases, the reality was a good deal less rosy than the dream. See Kotkin, *Magnetic Mountain*, pp. 73-79.

furnaces was a mere 920-930 cubic meters, whereas McKee's called for 1,200 cubic meters (ibid., p. 402n).

- ¹⁸ At a meeting of Moscow communists, a speaker tied Magnitogorsk to U.S. recognition of the Soviet Union: "The American sirs, convinced of our power and especially of the victories of the first Five-Year Plan, were compelled to recognize us.... Our magnitostrois, our giants of industry, our tremendous growth forced the capitalist countries to take note of us" (cited in ibid., p. 428).
- ¹⁹ Sutton, Western Technology and Soviet Economic Development, vol. 2, p. 343.
- ²⁰ Ibid., p. 329.
- ²¹ Williams, *Russian Art and American Money*, p. 12. "Missing manuscripts are usually attributed to a 1931 fire at the Hermitage or to subsequent German devastation; in one case, a Soviet publication of 1950 printed a photograph of Raphael's *Alba Madonna* without noting that for twenty years it had been hanging in the National Gallery of Art in Washington, not in the Hermitage" (ibid., p. 40). Charles Henschel, head of Knoedler, testified in the trial regarding the Mellon purchases: "In the fall of 1928 two friends of mine who were in Europe, in the art business, told me that there was a possibility of getting some of the fine pictures out of the Hermitage in Leningrad, but that in order to do this negotiations would have to be kept absolutely secret, because the Soviet officials did not wish the general public to know that they might dispose of any of their great pictures" (cited in ibid., p. 187).
- ²² Ibid., p. 41.
- ²³ "During the first three quarters of 1929, prior to the crash of the stock market, the Soviet Union was exporting more than one hundred tons of antiques and jewelry every single month, up sharply from 1928; the total amount of art objects exported during this nine-month period came to 1,192 tons. A year later in 1930, for the comparable January to September period, the total came to 1,681 tons; of this, 117 tons went directly to the United States." Ibid., p. 168.
- ²⁴ Ibid. Soon afterward the Soviets "signed a crucial agreement with the German government for millions of marks in desperately wanted industrial credits; Mellon and America were no longer as badly needed" (ibid., p. 175). Other buyers of European masterpieces included the Metropolitan Museum of Art, Philadelphia Art Museum, Rijksmuseum, several German museums (in Cologne, Hannover, Nuremberg), and (the earliest purchaser) the private collector Calouste Gulbenkian who was based in Lisbon (ibid., pp. 182-183).
- ²⁵ Ibid., p. 153.
- ²⁶ Ibid., p. 30. The president of Knoetller was Charles Henschel, grandson of the founder. "Henschel's key source of information was Zatzenstein, the head of the Matthiesen Gallery in Berlin, who had his own representative in Moscow, a man named Mansfeld. Zatzenstein had first gotten in touch with Knoetller's through the London dealer Colnaghi's, headed by partners Gutekunst and Gus Meyer. Henschel's contact man with Mellon was Carman Messmore. Thus, a continuous chain of diverse people linked Andrew Mellon in Washington with the Hermitage in Leningrad. Mansfeld in Moscow would inform his boss Zatzenstein in Berlin of an impending sale; Zatzenstein would contact Knoedler's via Colnaghi's in London; Henschel would send Messmore down to see Mellon." (Ibid., pp. 170-171.) Again, the cosmopolitanism of these transactions (and in this case it was an explicitly Jewish cosmopolitan network) is striking. As in the case of the international network of engineers, these individuals were used by Stalin for his own purposes, playing the capitalist competitors against each other. "It is significant that the

greatest of all art deals, involving an American buyer and the Soviet government, had to be consummated in Berlin. The United States did not recognize the Soviet government until November 1933 so that the legal risks of any sale on American soil were great. Europe was safer." (Ibid., p. 188.)

- ²⁷ "Hammer brilliantly perceived in 1931 that the glittering debris of the last Romanovs could be marketed wholesale [through department stores] to wealthy American women who were fascinated with European royalty and aristocracy but doomed to live in a democratic society" (ibid., p. 37). In these cases of public sales, threats of lawsuits from the original owners were always a danger. In May 1931 the entire contents of the Stroganov Palace in Leningrad were auctioned off in Berlin, and the Princess Stroganov in Paris "claimed the entire collection was her property." The Stroganov family "found little protection from those working for the United States secretary of the treasury, who had just consummated his own private art purchases from the Soviet government" (ibid., p. 178).
- ²⁸ Ibid., p. 167.
- ²⁹ "In 1932, the Russian émigré press in Paris and Prague circulated similar reports, adding that these paintings must be considered stolen goods taken from former private collections, but no rumor could pry open the lips of the obdurately silent Mellon or his agents" (ibid., p. 176).
- ³⁰ Cited in ibid., p. 189.
- ³¹ The conflict-of-interest charges were general and wide-ranging, "namely ... the fact that as treasury secretary Mellon maintained a substantial interest in three hundred corporations with more than \$3 billion in capital stock" (ibid., pp. 168-169 and 181). Mellon resigned his office, "demoted" in 1932 to the post of U.S. ambassador to Great Britain-where his passionate art collecting continued.
- ³² Ibid., p. 184.
- ³³ Ibid., p. 188.
- ³⁴ Ibid., p. 189.
- ³⁵ Duveen (1935), cited in ibid., p. 185.
- ³⁶ Cited in Williams, Russian Art and American Money, p. 179.
- ³⁷ Mellon's banking house helped to establish the Union Steel Company on the Monongahela River at the turn of the century, "a complete steel works with two 'monster' blast furnaces and batteries of open hearth furnaces" which later merged with United States Steel. See Harvey O'Connor, *Mellon's Millions: The Biography of a Fortune* (New York: Blue Ribbon Books, 1933), pp. 56-58.
- ³⁸ Williams, *Russian Art and American Money*, p. 173 (The caption on p. 153 states a different price.)
- $^{\rm 39}$ Sutton, Western Technology and Soviet Economic Development, vol. 2, p. 402.
- ⁴⁰ See Karl Marx, Capital, vol. 1, chap. 1.
- ⁴¹ "By the end of 1938, the Magnitogorsk Works had already produced more than 7.5 million tons of pig iron, 5 million tons of steel, and 3 million tons of rolling stock" (Kotkin, *Magnetic Mountain*, p. 69).
- ⁴² "Soviet newspapers gave wide coverage to the problems of unemployment, social unrest, and the difficulties of the New Deal" (ibid., p. 412n).