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PERIODIC INDUSTRIAL CRISES*

A History of British Crises

M. I. TUHAN-BARANOVSKY

CHAPTER I: CIRCULATION OF CAPITAL.

We have given an account of the history of British industrial crises in the 19th century. In addition we have endeavored to ascertain the economic conditions and causes which, in each specific instance, led British industry to a crisis. Each crisis had its own individual characteristics, just as each historical event which occurs in a concrete situation, and when explaining crises it was comparatively easy to point out the immediate causes peculiar to the given, specific moment which caused the crisis. But together with the individual peculiarities of crises there is evident an extraordinary resemblance between them in all their essential characteristics. The condition of the commodity market immediately before a crisis, changes in the field of money circulation accompanying the development of a crisis, the fluctuations of credit which follow — all this bears such a striking resemblance that when presenting the history of each crisis, one is forced to repeat almost without change what was said about other crises. This makes the history of crises very monotonous and serves as the best evidence of the uniformity of the phenomenon under investigation. Obviously a crisis is contingent not only on fortuitous causes, peculiar to a specific historical moment, but also on continually operative general causes inherent in the modern cultural and economic system.

We have seen that industrial crises or periods of industrial stagnation recur in England with striking regularity. Each decade has its period of revival and its period of business decline. If the fluctuations of modern industry were in the nature of individual phenomena, like most historical events, wars, revolutions, etc. for

* This is a reprint from *Periodicheskiye promyshlennyye krizisy* (3rd ed., St. Petersburg, 1914) and it is published as the seventh in the series of translations of Ukrainian source material (v. *The Annals*, No. 1). The excerpts with the chapters retaining their original numbers are from Part II, "The Theory of Crises."

example, there could be no uniformity and regularity in their recurrence and they would have to occur in the same indefinite and unforeseen intervals of time as other social phenomena. But the fluctuations of modern industry are so periodic that it has often been possible to predict them in advance. Consequently, in the phenomenon studied typical characteristics, common to each individual instance of its onset, dominate over individual characteristics. Therefore our task — the explanation of modern industrial crises in their entirety — can not be considered completed when we have explained the causes of each separate crisis. This explanation is only the first and easiest part of our job; we are still left with its second part — to establish the common causes, rooted in the modern organization of national economy, which make individual industrial crises such similar phenomena and bring about the recurrence of trade stagnation with such regular periodicity.

Goods are produced in the capitalist economy not for their own use but for sale. If a commodity does not find a market, the capitalist not only does not receive a profit but he also loses his capital. Continuous sale of the products of capitalist production is required in order to make possible the restoration of capital; if for any reason whatever this sale ceases for a more or less prolonged period of time, capitalist production also of necessity ceases.

Thus the process of capitalist production presupposes a continuous change of the forms of social capital. This change in the form of social capital constitutes the circulation of social capital. If we begin this circulation with that moment when goods enter the market, the first act of circulation will be the conversion of goods into money; commodity capital is converted into money (capital). Then follows the second act — the conversion of money into articles required for the resumption of production; the capitalist purchases the means of production and labor power with the money gained from the sale of manufactured goods. But since surplus value is also included in the value of goods created by capitalist production, a certain portion of their value is converted not into the means of further capitalist production but into articles for the consumption of the capitalist class. This part of the value of manufactured goods completes its circulation with a reversion into

goods which change into the use of the capitalist class. On the other hand, that part of the value which was converted into the means of production and labor power continues its circular motion; in the production process it is converted into new goods, through which surplus value is created, and, thus, the circular motion of capital is completed to recommence once more in the same form.

This entire process can be expressed schematically in the following way:¹

$$\begin{array}{ccccccc}
 & & S & & & & \\
 T & - & D & - & \dots & P & \dots T \\
 & & R & & & & \\
 + & & + & & & & + \\
 t & - & d & - & t & & .t
 \end{array}$$

T expresses the value of that part of the goods which represents the capital spent on production; t — that part of the value of the goods which corresponds to surplus value; the same parts of the value, converted into money, are expressed by the letters D and d. The letters S and R represent the value of the means of production and labor power. The letter P and the series of dots represent the production process.

The upper row of letters schematize the circular motion of capital itself, the lower — the circular motion of the surplus value which was created in the process of capitalist production. The upper row of letters shows how commodity capital is converted into money, then into the means of production and labor power, after which the production process follows. As a result the spent capital is restored in commodity form and surplus value is created. The lower row of letters shows the circular motion of surplus value. Appearing in commodity form, surplus value assumes the money form and then is converted once more into goods used by capitalists.

Thus in the course of its circular motion, social capital appears consecutively in three different forms: in the form of commodity, money, and production capital. In the course of production, capi-

¹ This scheme is Marx's scheme, somewhat changed. See *Das Kapital*, II, 48.

tal changes its material form but it does not change its master: the very same capitalist who acquired labor power and the means of production in his system also directs the course of transformation of the means of production into new goods, which then become objects of exchange. But in the process of transforming commodity capital into money (capital) and money (capital) into production (capital), the capital is transferred from the hand of one master into the hand of another.

Of these two acts — sale and purchase — purchase, under the conditions of the capitalist economy, presents no difficulties. If there is money, it is easy to buy goods.

It is a different matter with the other act of the circular motion of capital — selling. It is much more difficult in the capitalist economy to sell than it is to buy. The points of sale of a given commodity in the aggregate are called its market. The most typical feature of the capitalist economy is the fact that, as a general rule, the market for every commodity is filled and even overflowing with supply. Under modern conditions of economy the supply of goods can lag behind the demand only temporarily. On the other hand, in comparison with demand, a surplus supply of goods not only is not a rare phenomenon of the modern economic system but the general rule. Because the market is glutted with goods, the usual, normal condition of the commodity market in our day is characterized by the difficulty of selling goods.

From this there arises the struggle for markets, a striking feature of the economic life of our time.

Under the conditions of capitalist economy, the difficulty lies not in producing goods but in selling them, in finding a market for them. Because of its importance, this second problem pushes the first completely into the background. Everyone knows how complex is the organization of the market in our day, what an effort each industrialist must make to push his goods onto the crowded market, overflowing with all kinds of goods. As a general rule, supply always exceeds demand, outstrips it, and the producer is ready to do anything to stimulate demand. The modern industrialist has created a complex net of agencies whose eco-

nomic importance it is difficult to exaggerate. Like a spider's web, this net has caught the entire world in its mesh. Every large firm has great numbers of agents at its disposal, settled and traveling, solely occupied in finding buyers and customers for the firm's goods. If we add to the net the intermediaries of various public enterprises and institutions existing specifically to find markets for goods — consular agencies abroad, local, national and international expositions, trade museums, all kinds of associations for the development of trade, export, etc., etc., then, as we shall see clearly, what a vast, overpowering role the organization of the sale of goods — in other words, the market — plays in the modern economy.

The market is the knot which ties together the threads of modern economic life. The market governs production, production does not govern the market; such is the immediate impression produced by the capitalist economic system. Capitalist economy has vast resources of productive forces at its disposal, only a part of which are used. Every capitalist country at every period could considerably expand its production if it found a use for all of its productive forces. What is it that prevents this use, that checks the growth of social production in the capitalist economy? It is nothing else but the difficulty of finding a sale for producible goods — in other words, the lack of a market. The market is thus the focal force which controls the entire capitalist economy, and the lack of it, continuously felt by capitalist production, is an elastic band which checks the development of production.

But in what kind of soil does this lack of a market, this difficulty in selling goods originate, owing to which capitalist production is forever putting pressure on the market, is forever striving to produce more than the market permits? Herein lies the important and difficult problem of the market, the expansion of which has long been too much for economic science.

CHAPTER V: THEORIES OF CRISES.

The Theory of Production — Say, Ricardo, Wilson, Jevons, Engels, Kautsky. *The Theory of Exchange* — Laveleye, Juglar, Mills. *The Theory of Distribution* — Sismondi, Dühring, Rodbertus, Mill, George.

The periodicity of industrial crises has manifested itself most definitely in England, but periodic fluctuations of industry are also observed in all other capitalist countries. Beginning with the 1870's, phases of prosperity and depression seized the entire capitalist world simultaneously or almost simultaneously. The industrial crises at the end of the seventies, the mid-eighties and the beginning of the nineties of the past century, and the beginning of the present century and in 1908 were worldwide in nature; they differed only in the varying degrees of intensity in the various countries. The same must be said also of industrial upswings because, as a general rule, the force of the shock to the national economy of one country or another during the transition from prosperity to depression was in direct proportion to the intensity of the prosperity. In those countries where industrial booms had not suddenly appeared, abrupt disturbances of credit were also not observed during the transition to the slump; on the other hand, in countries of more intense prosperity, a drop in the industrial curve was accompanied by severe crises and panics. Thus, in this period, England did not undergo a single typical industrial crisis; instead, periods of industrial stagnation set in unaccompanied by panics and sudden disorganization of credit. Germany and the United States, on the other hand, experienced a series of periodic industrial crises during this period, which were by no means less intensive than the British crises of a previous time.

How is this mysterious phenomenon of capitalist development — its cyclicism, periodical change of phases of prosperity and depression — to be explained? For a long time economic science was not able to give a satisfactory answer to this difficult question.

The various theories which science advanced as an explanation of the problems of crises can be divided into three groups. One can include in the first group the theories which sought the cause of crises in the sphere of social production; in the second — in the sphere of social exchange; in the third — in the sphere of social distribution.

1. Theories of Production.

J. B. Say said that industrial crises occur not because too many goods have been produced but for a diametrically opposed reason:

certain goods can not be sold because of insufficient production of goods in other branches of industry. Actually, general overproduction of goods never occurs. To support this, Say cites as an example the industrial crises of 1812-13. During this period manufacturers everywhere complained of a decline in trade and lack of demand for goods. Actually, manufactured goods, particularly textiles of every kind, fell sharply in price and did not find a market; but on the other hand, agricultural products — grain, meat, and all colonial goods — rose exorbitantly in price and the demand for them exceeded the supply. In this way the surplus production of certain goods was compensated for by the shortage of production of others.*

D. Ricardo considered industrial crises as chance disturbances of trade brought about by the most diverse causes. Influenced by the events of his time, Ricardo dwelt particularly upon the disorganization of trade produced by the advent of war and conclusion of peace. According to Ricardo, all these disorganizations are caused by a change in the conditions of demand and continue until capital switches from those branches of industry whose production is in less demand to other branches of industry whose products enjoy greater demand.**

When Say and Ricardo wrote, industrial crises were still a new phenomenon and therefore it was easy to acknowledge them as simple chance. Subsequent events have proven that industrial crises are not fortuitous disturbances of trade, arising from external causes, but represent a unique feature of modern national economy and recur with regular periodicity even under most favorable conditions for the development of national industry and trade. The permanent causes of the recurrence of industrial crises or periods of trade decline are not indicated by Say and Ricardo. Say's argument that during a crisis, side by side with a drop in the price of some goods, a rise is to be noted in the price of other goods, only indicates Say's inadequate understanding of the inti-

* J. B. Say, *Cours d'Economie Politique Pratique*, p. 343.

** David Ricardo, *Principles of Political Economy*, Russian translation by N. Ziber, Chapter XIX, "On Sudden Changes in the Directions of Trade."

mate relationship, in an exchange economy, between all branches of industry and the prices of all commodities.

In general, if one acknowledges disproportionate distribution of social production as the cause of industrial crises, it is necessary to point out why production is disproportionately distributed at specific periods which recur with such remarkable periodicity. The whole difficulty of explaining the causes of industrial crises is precisely this: every individual crisis can usually be explained easily by some reasons or other, but why in every decade British industry experiences periods of boom and bust — the Say-Ricardo theory does not answer at all. According to this, an industrial crisis is the same kind of fortuitous, unforeseen misfortune as a war or epidemic, for example. But, as is evident from the history of British crises given above, each industrial crisis is a complicated complex of phenomena, which have developed in a rigidly fixed order. Every crisis is preceded by an expansion of production and increase in commodity prices; then commodity prices fall and the succession of changes begins in the circulation of money and credit and ends with the complete destruction of credit. The condition of the money market before and after an industrial crisis is so typical that it is very easy to predict them in advance. None of this is explained by the Say-Ricardo theory, which could not give the required explanation, since, at the time of the theory's origin, industrial crises were too new and undefined a phenomenon.

If we adhere strictly to the Say-Ricardo view and explain industrial crises by a chance disproportion in the distribution of social production, we must conclude that if industrial crises recur with regular periodicity, then disturbances in production also occur periodically.

But why is it that from time to time the entrepreneurs, in whose hands social production lies, are not equal to the situation and why, instead of adjusting national supply to demand, do they confuse the whole thing and throw industry into complete disorder? Obviously, if this really happens, it is because the entrepreneurs can not always control production. In which branch of industry does production submit least to the controlling activity of the human will? In agriculture, of course; the amount of agricultural goods which a

country produces fluctuates greatly from year to year, depending upon the condition of meteorological elements over which, until now, the human will has no power whatever. Thus we arrive at the conclusion that we should seek the cause of the recurrence of industrial crises in the sphere of agriculture.

This idea has been developed by a whole series of economists. As early as 1840, James Wilson, the founder of the newspaper *The Economist*, which acquired such deserved fame, published a small pamphlet, *Fluctuations of Currency, Commerce and Manufactures, referable to the Corn Laws*. In this very interesting pamphlet, Wilson speaks of the periodic recurrence of phases of trade revival and decline and sees the cause of this periodicity "in the enormous fluctuations in the sums paid for the necessities of life, or, in other words, in fluctuations in food prices."*

It is quite natural that the rise and fall of the cost of food, which constitutes such an important item of expense for the mass of the population, has an effect upon the condition of all other branches of industry. Commodity circulation can take place freely only if, in the production of each individual kind of goods, a certain proportion is maintained which corresponds to the conditions of supply at a given time and in a given place. Insufficient production of such an important product as human food immediately upsets all commodity circulation; if more of the purchasers' means is spent on food, less of it is left for all remaining expenditures. In this case, a want of demand for all non-agricultural articles is caused directly by insufficient production of agricultural products (according to Say's theory, the crisis is caused not by a surplus but by a shortage of goods).

This idea — that the cause of industrial crises lies in crop failures, was later reiterated by many economists. Of the most recent we cite, for example, W. Bagehot. . . .

But, as is known, fluctuations in the price of corn in England from the time of the abolition of the Corn Laws was caused not so much by fluctuations in the yield of corn in England itself as by the yields in countries of corn export. A low wheat price can coincide with the failure of the wheat crop in England; of course,

* James Wilson, *Fluctuations of Currency* . . . , London, 1840, p. 10.

such a situation is extremely ruinous for the British farmer and therefore can not help but also have a depressing effect upon the general condition of British industry. On the other hand, a high wheat price can also coincide with the British yield. . . .

The ten year cycle of development of British industry, the regular alternation of periods of trade revival and decline — all this can not be caused by fluctuations in the price of corn or by crop yields in England, since both of the latter figures fluctuate very irregularly. . . .

Thus the periodicity of industrial crises can not depend upon the periodic recurrence of crop failures of wheat and other grain cereals, produced by temperate countries (yields of rye, oats, barley, etc. generally fluctuate just as wheat yields). But this still does not prove that there is no relation between industrial crises and fluctuations in agricultural production. England exports the main bulk of its finished products to tropical countries and imports from them the greater part of the raw materials which she needs. Perhaps in these latter countries the yields of vegetable products experience periodic fluctuations which, in their turn, affect the industry of countries which trade with them?

Proceeding from this premise, one of the most remarkable of the British economists of recent times, Stanley Jevons, expressed the paradoxical idea that the periodicity of industrial crises depends directly upon the periodic increase of sun spots.* Jevons maintained quite seriously that there will come a time when the City will study the condition of the sun as carefully as they now watch the state of the cashbox of the Bank of England.

In Jevons' opinion, periodic disturbances of trade are not phenomena peculiar only to our time; Jevons finds the same periods of trade revival and decline also in the last century. According to him, during the last 200 years, intensification of speculation and disturbance of trade were noted in England in the following years: in 1711, 1721, 1732, 1763, 1783, 1805, 1815, 1825, 1836-1839, 1847, 1857, 1866 and 1878. Only two decades of the 18th century (1732-62) were free of crises, but even then it is possible that this was

* W. Stanley Jevons, *Investigations in Currency and Finance*. Articles: "The Solar Period and the Price of Corn," "The Periodicity of Commercial Crises," "Commercial Crises and Sun-spots."

only an apparent freedom and is to be explained simply by our inadequate acquaintance with the economic history of this period.

If we calculate the average length of the period separating the onset of each subsequent period from the preceding one, we shall obtain the figure 10.466 years; in other words, a more or less severe breakdown of trade occurs in England every 10.466 years. This figure tallies surprisingly with the period when the great number of sunspots appear on the sun. The period of the latter amounts to 10.45 years. The difference between the two periods is so insignificant that it can be ignored completely.

When in the course of two centuries two kinds of phenomena recur periodically within the same number of years, then, naturally, the thought arises that one of the phenomena may be the cause of the other. Since crises can not cause the appearance of sunspots, there remains the assumption that the appearance of sunspots is the cause of crises.

As early as the beginning of the last century, William Herschel suggested that the amount of spots on the sun exerted an influence on the weather and consequently on the yield of grasses and cereals. But if we shall compare the fluctuations of corn prices in Europe with fluctuations of sunspots, we shall not notice any conformity between the two phenomena. In Jevons' opinion, the reason for this lack of conformity lies in the complexity and diversity of the meteorological conditions which determine the yield and price of corn in Europe.

It is another matter if we take tropical countries. There, meteorological conditions are much more simple and more monotonous and that is why it is easy to note the influence of the change in the amount of solar heat and light received by the earth on vegetation. Dr. Genter and other observers have noted that in India famines, caused by crop failures, recur periodically and that the period of recurrence coincides with the period when the greatest number of spots appear on the sun. Taking this into account, it is not difficult to understand the mysterious connection between the state of the solar disk and industrial crises in England. . . .

But if periodic industrial crises depend upon the periodic increase of sunspots, it still does not follow that industrial crises can

not originate from other causes. The crises of 1798 and 1811 were caused by political events; the crisis of 1871 was caused by the termination of the Franco-Prussian war. But these crises, being of a more or less fortuitous nature, should be distinguished from the periodic disturbances of the national economy which are conditioned by fluctuations in the sun's light and heat.

The theory of crises set forth by Jevons is characterized by the usual virtues and shortcomings of this original thinker and economist.* Like all the rest of Jevons' work, it displays rare statistical virtuosity and inventiveness. Great creative imagination was required to deduce a connection between two such remote phenomena as industrial crises and sunspots. But, on the other hand, this theory also reveals Jevons' usual shortcomings: the misuse of mathematical, abstract combinations to the detriment of careful study of actual facts. Having calculated the average periodicity of the onset of British crises and having obtained a number approximating the number of periodic appearances of sunspots, Jevons considers the matter solved and the casual connection between the two phenomena proved. But in order to obtain the desired figure, Jevons had to make a whole series of far-fetched interpretations. He rejects some crises completely as not periodic; in other instances he maintains that crises occurred at specific moments required by his theory, although he presents no factual proof for this.

Actually, of all of the crises in the 18th century enumerated by Jevons, only the crises of 1721, 1763, 1783, and 1793 were unquestionable, and, except for the crises of 1721 and 1793, they were very weak. In the 19th century, industrial crises or periods of business stagnation actually recurred in England with remarkable regularity: from the twenties to the seventies, each decade was marked by an industrial crisis, and beginning with this period industrial crises gave way to long periods of commercial and industrial decline. But it can not be said that the interval of time separating each subsequent period of trade revival or decline al-

* It found followers. Thus, for example, the Italian economist Vossardo in his work *Economia Politica* (Torino, 1877) accepted Jevons' theory as a whole and even offered to set up a number of astronomical, botanical and statistical controls in order to solve the problem definitively.

ways remains the same. Thus, during the first two decades of the 19th century there were three crises — in 1810, 1815 and 1818; but in 1805, contrary to Jevons' assertion, there was no industrial crisis. . . .

Beginning with the twenties of the 19th century, great regularity is observed in the advent of crises or periods of commercial and industrial decline. But again, this regularity is far from attaining the limits which Jevons' theories require. The intervals between the three crises of 1825, 1836, and 1847 amounted to 11 years; the next crisis set in in 10 years (in 1857), and then a crisis occurred in 9 years (in 1866). . . .

Therefore, even taking as a basis the time of the onset of crises, it can not be assumed that the recurrence of crises is directly linked with some strictly periodic, astronomic, or physical phenomenon. On the contrary, the cause of the recurrence of crises is obviously of a social nature, and, therefore, the period of the onset of crises now expands and contracts, depending upon changes in the economic, political, and general social conditions of a specific time.

But the main objection to Jevons' theory is that it is not in accord with the real, concrete conditions of the origin of individual crises. In setting forth the history of individual crises, we are almost obliged to say nothing about India, but, on the other hand, we must discuss the United States in detail. Actually there is a comparatively minor fluctuation of exports of British goods to India. Strange as this may seem, during many crises the export of British goods to India not only did not decline but even increased. . . .

Jevons' theory explains the origin of industrial crises by physical causes. In opposition to this, the theory which we shall now study places the social cause of crises at the forefront. Fourier already spoke of the vicious circle, *circulus vitiosus*, of the modern industrial system, under which excessive wealth is the direct cause of poverty. But this theory was developed completely only in the works of the creators of modern scientific socialism: Marx and Engels and their followers, the German Social-Democrats. . . .

Karl Marx did not offer any specific theory of crises. In those places in *Capital* where he speaks about crises, he joins with Engels, whose studies on the industrial reserves of capitalism, the surplus army of workers (who enter factories and shops during prosperous years and live in poverty and destitution during periods of industrial stagnation), became one of the cornerstones of the economic system of *Capital*.

It is interesting to pause for a look at the views of Kautsky, the head of modern Marxism, on the present question.

"The great contemporary crises which shake the world market," says Kautsky, "are caused by overproduction which, in its turn, arises from the lack of plan (*Planlosigkeit*) inherent in commodity production. Overproduction in the sense that the amount of manufactured products exceeds the demand for them is possible under any form of economy; but when manufacturers produce for their own use, this can not cause any harm. . . It is different with commodity production. In its developed form it assumes that no one produces for his own use, but solely for the market. Each one must buy what he needs. In addition general production is not distributed according to any plan, but each producer is left to guess for himself how great is the demand for the goods which he produces. On the other hand, under commodity production, as soon as it has risen above the lowest stage of exchange, no one, except producers of the commodity serving as the money unit, precious metals, can buy without having previously sold. These are the two roots of crisis. . . ."

. . . The idea that industrial crises are the natural and inevitable consequence of the modern organization of national economy was put forth by many people even before Engels (suffice it to mention Sismondi); but only the Marxist school explained with complete preciseness just which elements of the capitalist system give birth to crises. Nevertheless, I can not acknowledge that the problem of the origin of crises has been solved to complete satisfaction by the works of the followers of this school. Suffice it to say that in Kautsky's opinion, industrial crises are brought about all the same by accidental causes (opening of a new market, for example);

* Karl Kautsky, *Das Erfurter Programm*, Stuttgart, 1892, p. 87.

but if this were so, then crises would not recur at such regular intervals of time.

One can agree that the lack of organization of commodity production and free competition constitute the basic cause of industrial crises. But, as I have said previously, in forming a theory of crises the main difficulty lies not in indicating the conditions which at any given moment can cause a crisis, but in explaining precisely the fact that crises occur not every moment but within definite intervals of time, i.e. periodically. Capitalist production always remains disorganized; but industry and trade are at one time in a flourishing state and at another in a state of extreme depression. There must be some basic cause, not indicated by the Marxist school, which brings about the regular expansion and contraction of the entire national economy. Let us now see whether this cause lies not in the sphere of production but in the sphere of exchange.

2. *The Theory of Exchange.*

The most common explanation of crises which is repeated by almost everyone who has written about crises (among them, historians of crises, for example, Tooke,* Morier Evans,** M. Wirth,† Juglar,‡ etc.) is as follows: crises are caused by intensification of speculation in the commodity and money market. Evidence by a number of practical and scientific people, evidence presented by a number of British parliamentary commissions which investigated the causes of crises, nearly always point to overtrade and overtrading as the main cause of a crisis. . . . Excessive expansion of trade, always accompanied by abuse of credit, is a consequence of intensification of the speculative spirit among traders; speculation on the stock exchange always leads to the creation of numerous

* Th. Tooke, *A History of Prices*.

** Morier Evans, *The Commercial Crisis*, 1847, London, 1848; *The History of the Commercial Crisis 1857-1858*, London, 1859.

† Max Wirth, *Geschichte der Handelskrisen*.

‡ S. Juglar, *Des Crises Commerciales*. The historical part of this excellent work is very poor and in places is a literal translation of M. Wirth's book just as the latter book is, in place, a translation of Tooke.

stock exchange prices, a considerable portion of which come into being not owing to the country's real needs but solely for purposes of stock exchange speculation. It is quite natural that intensification of speculation and expansion of credit must eventually lead to the ruination of the speculators, for only those enterprises, which conform to market conditions and are carried on with a sufficient amount of available capital, can have a lasting success. But since, thanks to the expansion of credit, there exists at the present time a close connection between all of the individual businesses, the speculators' bankruptcy involves also the ruin of the rest of the entangled and not very stable enterprises; and an industrial crisis breaks out in the country.

This, we repeat, is the usual explanation of crises. But, in essence, it is not an explanation at all but a description of the external symptoms of industrial crisis. Why at specific moments does the spirit of speculation become more intense and envelop the entire commercial and industrial world like an epidemic? If these moments occurred very rarely (as, for example, the famous speculations during the last century of John Law in France or the speculations of the South Sea Company in England) one could still consider them accidental phenomena, like some epidemic disease, without giving any further explanation. But if from decade to decade the spirit of speculation invariably grows more intense at approximately the same time, within regular intervals, then it is necessary to indicate some general cause for this, for it is quite improbable that such frequent and regular recurrence of the same phenomena is not caused by a general, constantly operative cause.

And so, what is the general cause which periodically calls for the intensification of speculation and subsequent crash?

From the time of the famous controversies of British economists of the thirties and forties over the effect of the excessive issue of bank notes on commodity prices, it became customary to attribute crises to a connection with the organization of credit and currency exchange. According to S. Lloyd (later Lord Overston), Torrens, and others, fluctuations in British industry are caused directly by the incorrect organization of banking in England. The writers of this school maintain that overissues of notes by the Bank

of England raise commodity prices, stimulate British trade artificially, and, when intensification of speculation leads the country to crisis and gold begins to pour out of the bank's till, then the sudden curtailment of credit to which the bank is forced to resort to guarantee the exchange of its notes for hard cash, puts the finishing touch to the calamity and causes a panic on the money market. As is known, S. Lloyd succeeded in winning over Sir Robert Peel, the Prime Minister of England, to his side and in carrying out the famous reform of the Bank of England about which so much has been written in England and abroad. But we shall not concern ourselves with all of these old controversies which are now only of historical interest. The Bank Act of 1844 did not prevent crises and this alone proves that the cause of crises does not lie in the excessive issuance of notes by the Bank of England.

Nevertheless, later attempts to link industrial crises to conditions of currency exchange continued. Many economists had previously seen in the incorrect credit organization the main, if not the only, cause of the periodic recurrence of industrial crises. Besides it is very typical that there are two mutually exclusive views with regard to the main problem in economic literature, which include defects in the modern credit organization. In the opinion of some, crises are caused by monopoly of banking, the privileged position of big banks, which to a greater or lesser degree are state institutions. According to others, on the contrary, crises are created by excessive freedom of banking, by too little control by government over banking operations.

Charles Coquelin,* Adolph Wagner,** (in his first work on banks; in subsequent works A. Wagner altered his views on this question considerably), George Guthrie,† Carey,‡ Macleod,§ and

* Ch. Coquelin, "Les Crises Commerciales et la Liberté des Banques," *Revue des Deux Mondes*, 1848, Novembre.

** Adolph Wagner, *Beiträge zur Lehre von den Banken*, Leipsiz, 1857.

† George Guthrie, *Monetary and Commercial Crisis — An Avoidable Evil*, London, 1859, and *Bank Monopoly, the Cause of Commercial Crises*, Edinburgh and London, 1864.

‡ H. C. Carey, *The Past, the Present and the Future*, London, 1856. Chapter V, also "Management in Social Science," Petersburg, 1869, first book by L. Shakhovsky, Chaps. XXVI-XXIX and other works by the same author.

§ H. D. Macleod, *Theory and Practice of Banking*, London, 1857 and a whole series of other works by this author, devoted almost exclusively to questions of banking.

many others wrote against the monopoly of banking. The usual rebuke to privileged banks is as follows: these banks, being completely secure from the crises which ruin small credit institutions and having at their disposal enormous capital flowing to them from the entire country, artificially lower the discount rate during a period of industrial revival and in this way encourage speculation. When speculation attains such proportions that a crisis becomes inevitable, the privileged banks immediately raise the discount rate and cause a panic, which is disastrous for the whole country but very profitable to them (it is well-known that the dividends of the Bank of England are highest during years of crisis owing to the increase in the discount rate and expansion of discount operation). Freedom of banking makes it impossible to artificially reduce the discount rate and to prevent industrial crises or make them more rare.

On the other hand, in their basic views the opponents of banking freedom (for example, Geyer* and Moriz Mohl** and a whole series of recent writers who insist that it is necessary to regulate the emissive operation of banks) come close to the British supporters of the currency theory. As the latter they maintain that the main or one of the main causes of crises is the issuance of bank notes not guaranteed by hard cash. In the opinion of the writers of this school, freedom of banking would lead to an intensification of speculation, owing to the creation of fictitious wealth by the banks in the form of bank notes, guaranteed by nothing, and would produce industrial crises even more frequent and more ruinous for the country than now.

Thus the arguments of one side are shattered by the arguments of the other. Actually, industrial crises are not directly connected with any specific organization of banking, which is proven irrefutably by the single fact that industrial crises occur in countries where there is wide freedom in the banking business (United States) as well as in countries of rigidly centralized, monopolized credit (France).

* Ph. Geyer, *Banken und Krisen*, Leipsig, 1865.

** Moriz Mohl, *Ueber Bank-Manöver, Bankfrage und Krisis*, Stuttgart, 1858.

But if crises are not caused by one or another organization of credit, then are they not linked to the general conditions of money circulation in countries with expanded credit? In 1865, the well-known Belgian economist Emil de Laveleye published an interesting book *Le Marché Monétaire et ses Crises depuis cinquante ans*. In this book Laveleye tries to prove that industrial crises are caused precisely by conditions of money circulation. Laveleye's reasoning is as follows:

The only condition which invariably precedes all industrial crises, wherever they occur, in Europe or America, is the flow of gold abroad from within the country. Whatever the other circumstances, in this respect all crises resemble each other. For this reason it is natural to assume that the flow of gold abroad is the real cause of crises.

In reply to this it is usually said that in a country like England a reduction in gold reserves by several million pounds sterling is of no great importance in view of the enormity of its capital and the immense size of its internal and external trade. But it can not be forgotten that in England all this trade is built upon the broadest expansion of credit. And the credit, in its turn, is based upon a certain reserve of ready cash. The more perfect the organization of credit and the lower the amount of hard cash a country needs, the more important is the amount of ready money which a country has at its disposal. The entire complicated structure of British trade and British credit rests on the unstable foundation of several millions of pounds sterling of gold and silver which are kept in the Bank of England. These few millions are vitally necessary in order that the hundreds of millions of British capital can circulate properly. If the reserve of gold and silver in the cashbox of the Bank of England diminishes, anxiety spreads through the entire country, credit is curtailed, commodity prices fall because everyone realizes perfectly well that a sufficient supply of hard cash, kept in the Bank of England, is needed for the trade and industry of the whole country.

The lower the metal reserves of a country, the more strongly it is effected by the flow of gold abroad. For this reason England suffers more from industrial crises than France.

Further confirmation of the connection between industrial crises and money circulation is the remarkable fact that crises usually occur in autumn. It is in autumn that the demand for cash is usually high: at this time the main bulk of agricultural products changes hands, rent is paid, purchases are completed for the winter, etc. The banks' metal reserves diminish sharply in autumn and therefore it is quite natural that industrial crises usually occur at this time.

Laveleye says, ". . . elements of crisis are always in readiness or, if you please, there is a constant tendency toward crises but the onset of a crisis is always determined by the export of valuable metals abroad."*

This is the explanation of the cause of crises put forth by Laveleye. At first glance it may appear quite clever; in reality it explains nothing. The outflow of gold is a common symptom of industrial crises but it is in no way their cause. In 1839 the metal reserves of the Bank of England diminished a great deal more than in 1836 or 1847, but there nevertheless was no industrial crisis in 1839. It was exactly the same during the first half of the sixties when the amount of metal on hand fell several times by several million pounds sterling without causing an industrial crisis. The panic of May, 1866 was not connected at all with the flow of gold abroad, since during all of April and May the rate of exchange was favorable to England.

Further, even if a reduction in the ready money of the Bank of England was a direct cause of industrial crisis, it is necessary to point out what causes the periodic recurrence of the flow of gold abroad. A change in the trade balance is a derivative phenomenon which in itself requires explanation; one can agree, with certain reservations, with Laveleye's assertion that the flow of gold abroad always precedes an industrial crisis (before the crisis of 1866 gold did not flow abroad but this crisis was not, strictly speaking, an industrial crisis); but it does not follow from this that this particular circumstance is the main cause of crisis and not a common symptom of its approach. Laveleye's theory is a faithful descrip-

* E. Laveleye, *Le Marché Monétaire et ses Crises depuis cinquante ans*, Paris, 1865, p. 148-50.

tion of the symptoms of industrial crises but it does not explain the secret mechanism which causes this whole complicated set of phenomena — the revival of trade, fall of the exchange rate, flow of gold abroad, and subsequent disturbance of the whole national economy.

The same can be said of the theory of C. Juglar, author of the excellent work, *Des Crises Commerciales and de leur retour periodique* (first edition in 1860 and second in 1889). This work is particularly remarkable in that it proved for the first time the periodicity of industrial fluctuations in England, France, and the United States. Having studied accounts of British and French banks and also the most important banks of the United States, Juglar arrives at the following conclusion: "Without proceeding either from any theory or from any hypothesis but based solely on observations of actual facts, it is possible to establish the laws of periodicity of crises. There are periods of revival, prosperity, and price rises which always end in crisis; they are followed by years of a lull in trade and reductions in prices, which lead industry to a more or less depressed condition."*. . .

Juglar presents the whole mechanism of the development of crisis in the following way.

An increase in commodity prices has a natural tendency to impede the sale of goods. For this reason as prices increase, the trade balance becomes less and less favorable to a country. Gold begins to flow abroad to pay for goods whose export ceases to cover the imports. At first this outflow is very insignificant and attracts no attention. But the higher the prices, the more freely gold flows abroad. Finally commodity prices become so high that the sale of goods abroad becomes extremely difficult. Unable to pay for goods by goods, traders begin to renew their promissory notes in the banks up to the expiration dates of their payment and this explains the intensification of the discount operation of banks during the period directly preceding a crisis. But even though the payment has been deferred, it must be made sooner or later. Com-

* Clement Juglar, *Des Crises Commerciales et de leur retour periodique*, Paris, 1889, Chapter XV.

commodity prices fall immediately, bankruptcies of banks and traders follow, and an industrial crisis sets in.

There is nothing to be said against all this: undoubtedly Juglar has observed quite correctly the most typical feature of industrial crises — the fall of commodity prices. However, the direct cause of crisis does not lie at all in a diminution in the supply of cash in circulation, as suggested by Laveleye, but precisely in the reduction of commodity prices which immediately suspends all trade. The most scrupulous trader can become bankrupt if the selling price of a commodity does not cover the purchase price. Juglar also explains very well the cause of the flow of cash abroad in the period immediately preceding a crisis; the increase of commodity prices within a country at the same time retards the export of domestic goods abroad and encourages the import of foreign goods; it is quite understandable that the shortage of export of goods is covered by the export of gold; we have had repeated occasions to be convinced of this, when describing the history of individual crises.

Nevertheless, we do not think that Juglar's theory explains the origin of crises in modern national economy. Compared with Laveleye, Juglar went one step forward — he showed that the disturbance in the sphere of money circulation which characterizes the approach and onset of crisis is the essence of a derivative phenomenon caused by a change in the relative level of commodity prices within a country and abroad. But why is it that commodity prices undergo such periodic increases which end in industrial crises? Juglar says that the yearly savings in those countries where trade and industry increase rapidly has a constant tendency to raise the price of goods. It is impossible to agree with this assertion. If the demand of goods increases, then surely their supply grows and production expands. As we have attempted to demonstrate earlier, in capitalist countries demand does not run ahead of supply, but supply always presses on demand and tries to stimulate it and expand it artificially. There is always a part of surplus capital and surplus goods which find no place on the market. Under such conditions the country's savings are more inclined to lower than to raise commodity prices, since capital enter-

ing a market anew, already glutted with goods, only increases the difficulty of adjusting the supply of goods to the demand.

Thus Juglar's theory does not explain what is most important — increases in commodity prices during the period preceding a crisis. Further, Juglar does not indicate why the increase in commodity prices always ends in their drop and a breakdown of trade. If one assumes that prices rise in one country while the average level of prices does not rise in other countries, as happened during the first half of the 19th century, when industrial ebbs and flows encompassed only a few countries — England, the United States, and, to a lesser degree, France — then it is quite understandable that, having reached a certain limit, the increase of commodity prices must come to a halt because of the impossibility of selling goods on foreign markets where commodity prices have not increased. The first three crises (1825, 1836, and 1847), which we have described above, were of this local nature. But in modern times the revival of industry and trade has spread, one can say, to the entire world. Why then in this case should commodity prices have fallen after every increase? Juglar's theory does not give any explanation for this.

Thus, what causes periodic fluctuations of commodity prices? John Mill gives an interesting reply to this question in an article, "On Credit Cycles and the Origin of Commercial Panics" (*Transactions of the Manchester Statistical Society*, 1867-1868).

The immediate causes of crises, says Mill, are so diverse that one can not seek in them the general causes of crises which have made them regular, periodic phenomena. The causes of this are not to be seen in one or another system of money circulation, for crises occur under various systems.

The explanation of crises must be sought in the mental peculiarities of man, since credit, the fluctuations of which constitute the most typical feature of crises, is a phenomenon of a spiritual order.

Generally speaking, a panic on the money market does not destroy capital, and, yet, its effect is so disastrous to the entire national economy. What then is destroyed during a panic and leaves a vacuum behind it? "It is that subtle, immaterial agent by means

of which inert capital is put into motion and guided to new paths. That agent is credit.”*

Panic is the death of credit. But credit possesses the ability to revive and its life cycle is also the cycle of modern industry. . . .

All that which we have said above concerning the theories of Laveye and Juglar applies to the theory expounded: it represents a description of the phases of industrial development in the capitalist economy rather than an explanation of them. Reference to changes in the mental state of entrepreneurs and capitalists explains very little since we have no methods by which to define the spiritual make-up of a whole social class. Besides, if fluctuations of credit are the only cause of industrial ebb and flow, then at present, when fluctuations of credit have diminished considerably, industrial fluctuations should have correspondingly diminished.

We said above that during the eighties of the last century there was no regular decennial disturbance of credit; nevertheless British industry was in a worse condition during half of the eighties than at the end of the fifties or sixties when credit experienced a severe shock.

The usual system of development of modern economy, pictured in a few words by Lord Overston (“tranquility, improvement, growth of confidence, prosperity, excitement, speculation, shock, panic, stagnation, depression and calm again”) applies fully only to a former time when, actually, every industrial cycle invariably ended in panic, destruction of credit and industrial crisis. For many years now there has been no real industrial crisis in England and yet its industry fluctuates more rhythmically and regularly than ever. Consequently the basic cause of these fluctuations does not lie in credit but in something else; fluctuations of credit are only a reflection of more profound economic processes which occur at the present time just as before.

3. *The Theory of Distribution.*

As we have attempted to show, industrial crises are accompanied by many characteristic changes in the field of credit and

* John Mill, “On Credit Cycles . . .,” (*T. of the M.S.S.*, 1867-1868), p. 18.

money circulation, but these changes do not constitute the basic causes of crises but are rather symptoms of this peculiar illness of the capitalist system. Where then are we to look for its cause? Perhaps in the sphere of distribution and consumption? A whole series of remarkable writers trace industrial crises to a connection with just such causes.

In Malthus' opinion, the industrialists can not use all of the goods produced by them because the chief aim of industrialists is not the use but the saving of their profit, the accumulation of capital. The resulting surplus of unconsumed goods can not be consumed by workers since their wages tend toward the minimum means of subsistence. Consequently a special class of consumers is needed to use the surpluses of national output and this class is the wealthy landowners, whose splendor is no less useful to industry than the savings of the industrial class. From Malthus' point of view, industrial crises are caused by the inadequate growth, in comparison with the increase of production, of the non-productive consumption of the wealthy classes.

Another notable economist — Simonde de Sismondi — arrived at a completely opposite conclusion in the socio-political respect, while insisting, like Malthus, upon the importance of consumption in the national economy.

The question of the causes of commodity overproduction and industrial crises is the cornerstone of Sismondi's economic system. Not a single economist of Sismondi's day gave as much time and labor to clearing up this question as the famous author of *Nouveaux Principes d'Economie Politique*. According to this, Sismondi's explanations of the causes of industrial crises in modern national economy are very complex and it is difficult to cram them into one specific system.

In essence, Sismondi suggests a whole series of explanations of the phenomenon under consideration, explanations, moreover, which are not completely consistent and are based on different points of view. We have set forth one of these explanations above, the essence of which is as follows: under the influence of free competition, the incomes of the working class are reduced, and profits of the capitalist class increase more slowly than produc-

tion. Since the market for the goods produced is limited by the size of the national income, it is quite natural that with the modern organization of the national economy any expansion of production and intensification of competition leads to industrial crisis or stagnation of trade. . . .

Sismondi's explanation of the general cause of industrial crises, given above, had great success in economic literature and was accepted by a whole series of scholars and publicists. Thus, for example, Dühring explains industrial crises as follows: "Production expands more rapidly than the continuously lagging ability of the masses of the people to buy manufactured goods. When shortage of consumption is artificially stimulated, even unchanged production assumes the appearance of overproduction."*

Of the more recent writers, Heinrich Herkner in his not uninteresting book *Die Sociale Reform als Gebot des wirthschaftlichen Fortschritts* advanced the following thesis, in complete agreement with Sismondi's teaching:

"In the first place, circulation, left to its own devices, has a tendency toward great disparity in the distribution of income and property.

"In the second place, the purchasing and consuming power of the mass of the population lags behind the increase in labor productivity, which has been attained by modern achievements in techniques and economics.

"In the third place, this disparity between the purchasing and productive power of the working class causes the domestic market to be glutted with goods and to escape this glut they expand the export and investment of capital abroad. But this latter method runs into greater and greater difficulties owing in part to the glut of goods on the foreign market and partly to the ever increasing competition between the industrial states, which are forced to seek markets abroad because of the inadequate consuming power of the working masses."**

* E. Dühring, *Cursus der National und Socialökonomie*, Leipzig, 1876, p. 222.

** Heinrich Herkner, *Die Social Reform . . .*, Leipzig, 1891, p. 37-38. The same author wrote the article "Krisen" in *Handwörterbuch der Staatswissenschaften* Konrad.

In our opinion, this theory is based on a completely incorrect understanding of the importance of markets in the capitalist economy and for this reason alone it can not be correct. It is disproven theoretically by the theory of the market, which showed that the size of the demand for a social product is not determined by social income. There is no doubt that the expansion of production in the modern national economy, based on free competition, is a very difficult process, sometimes thoroughly impracticable in actuality. But the difficulty of expanding production is not in the least contingent upon what portion of the national output each social class receives. If wages grew to such a degree that all or almost all of the national output were consumed, it would nevertheless be difficult to expand production under free competition.

This history of industrial crises is the practical refutation of the theory which has been expounded. Actually, what characterizes the period of industrial revival? Increase in wages, that is, increase in the demand of the working class for the production of native industry. Nevertheless, crisis follows industrial revival. As we have seen, Sismondi explains industrial crises from his point of view as follows: inadequate demand for goods on the domestic market (caused by the low level of wages) forces industrialists to seek a market for their goods abroad; this market is created by the sending abroad of surplus native capital, but when this capital is spent on acquiring the goods of the country to which the capital belonged, the demand for these goods abroad ceases and a crisis ensues. Everything in this explanation is quite true except the first premise; but the first premise is built upon the correct hypothesis that the size of national demand for goods depends directly upon how high wages are.

Actually, if low wages prevented the expansion of production and the sale of goods on the domestic market, and the sale abroad were possible only as long as capital received from the country exporting the goods was spent, then the development of British industry would have presented the following picture: while wages remain low, production does not progress but experiences periodic fluctuations — from time to time it expands sharply, then contracts just as quickly and returns to the same previous level. As a

matter of fact, social production grows rapidly in capitalist countries. How is it that a few years after a crisis, the market is able to consume considerably more goods, if the cause of crisis was the inadequate consuming power of the market and low wages which, one must remember, are always higher before a crisis than after it? If a crisis is caused by a shortage of consumers, by the inability of increased demand to keep up with the growth of production, then this ordinary fact — that within a few years after a crisis, when wages and profits have been reduced, there is a market for a much greater quantity of goods — becomes absolutely incomprehensible.

Thus, we repeat once again — the fact that a few years after a crisis the production of goods is greater, their value higher, and the quantity of products consumed by a country is larger proves conclusively that the cause of crisis does not lie in the inadequacy of a nation's consuming power, nor in the low level of wages (for the latter do not rise but fall after a crisis), but in something else.

The level of wages, just as of profits, is not the cause of a certain condition of industry but a consequence of the latter. Wages rise or fall depending upon the favorable or unfavorable condition of the commodity market. For manufacturers to create a market for goods by increasing wages would be tantamount to their voluntarily giving up a part of their profits for the benefit of the working class; such a concession might be very desirable in many respects, but it obviously can not be recommended in the interests of the manufacturers themselves, who always prefer to use "surplus" goods themselves rather than give it to the workers.

Another explanation of the causes of industrial crises, by the same Sismondi, proceeded from a completely different point of view. The theory given above was worked out by Sismondi mainly in his first important work *Nouveaux Principes d'Economie Politique*. After this book was published, Sismondi had an opportunity to become personally acquainted with Ricardo and to discuss with him at great length the controversial question of the possibility of general commodity overproduction. The result of this discussion is an interesting comment in *Etudes sur l'Economie Politique*, occupying about seven lines in small print.

In this comment Sismondi analyzes a hypothetical case of commodity exchange at a time when the demand for goods is not growing and labor productivity is increasing. The results of this analysis (rather inconsistent, by the way) turn out to be decidedly in favor of Ricardo's theory, of which the following quotation can convince you: "We arrive at this conclusion, just as Ricardo," says Sismondi, "that when commodity circulation has ended, if it takes place without hindrance, production itself creates demand; but we arrive at this conclusion only provided that, like the German metaphysicians, we ignore completely the elements of time and place, ignore all of the obstacles which can check the circulation of goods; and the more closely we study the problem the more numerous these obstacles seem to us."* But Ricardo never maintained that the transfer of capital from one branch to another is accomplished without any difficulties. His theory is that if capital is distributed among various branches of industry in conformity with demand, then no expansion of production can bring about a glutting of the market with goods which do not find a market. Agreeing with his opponent on such an essential point, Sismondi rejects this theory of crises which we have just stated and which has so many adherents even to the present day.

Nevertheless, Sismondi by no means thinks of laying down his arms and he soon offers a new, no less ingenious, explanation of industrial crises. Sismondi studies the effect of achievements in the techniques of production upon commodity circulation. In addition he assumes that an increase in labor productivity is not accompanied by an increase in real wages. In such a case, in order to restore the balance between production and consumption, the number of workers employed in producing the necessities of life must be reduced and the number of workers employed in producing luxuries (intended for the capitalists whose profits rise as a result of the decline in the workers' share of social goods), increases. . . .

Thus, each technical invention brings about a reduction in the demand for the necessities of life and an increase in the demand for luxury articles; and, since it is very difficult to transfer capital

* Sismondi, *Etudes sur l'Economie Politique*, p. 58.

from one branch of industry to another, a glutting of the market with goods occurs — in other words, an industrial crisis.

This explanation of industrial crises, put forth for the first time by Sismondi, was adopted and worked out in detail by one of the first creators of scientific socialism — Karl Rodbertus-Jagetzow....

... Rodbertus accepts the famous Malthus-Ricardo doctrine of the natural inclination of wages toward a minimum means of subsistence — the doctrine which was later popularized by Lassalle in Germany under the high-flown designation “the iron law of wages.” Rodbertus identifies the not completely correct formulation, which he added to Lassalle’s doctrine, by the phrase “the natural law of wages is just as sound as the law of the relation of cause and effect.”* All of Rodbertus’ subsequent conclusions flow logically and inevitably from this basic point.

Thus, in Rodbertus’ opinion, crises are caused by the reduction of the workers’ share in the national output as labor productivity increases. At the same time it is important to bear in mind that Rodbertus flatly denies that crises could be caused by an absolute level of wages. “I maintain that the cause of industrial crises lies not in the insufficiency of the workers’ share in the social output but in the reduction in this share in proportion to improvements in techniques, and I also maintain that crises could not occur if this even were just as small as it is now but had increased when labor productivity increased, and further, that crises will occur no matter how great this share is, provided it falls when labor productivity increases.”

The logical formulation of this theory is quite correct and the objection which we made to Sismondi’s first theory is not at all applicable to his second theory, which has been developed more fully by Rodbertus. From the foregoing account it is easy to see that Rodbertus proceeds from the same understanding of the conditions of commodity circulation as that expressed by Say in his “theory of markets.” According to Rodbertus’ theory, overproduction of goods is created by insufficient demand for goods in general and not by disproportionate distribution of national produc-

* Karl Rodbertus-Jagetzow, *Kleine Schriften*, Berlin, 1890, p. 320.

tion, brought about by the inclination of workers' wages toward the minimum means of subsistence. All of the consequences which Rodbertus foresaw should really take place provided his first premise is correct.

But the fact is that this premise is entirely false. One can accept or reject the fact of the increase of real wages during extended periods of time, but one thing is beyond question: for short periods of time, money wages are much more stable than real wages. We note that Rodbertus' whole theory of crises is built upon the assumption that the reduction in the workers' share in the national output takes place so rapidly and suddenly that capital has no time to adapt itself to the changing conditions of demand and the changes from producing articles for the consumption of the working class to producing articles for the consumption of the capitalists (whose share in the national output increases). All this is not observed in actuality: progress in techniques is not achieved at one stroke in all branches of industry but proceeds little by little and at a different time in various branches of labor. Today some invention is devised in the iron industry, tomorrow in the cotton industry, the day after tomorrow in the silk industry, etc. If calico drops in price, money wages do not drop instantly in corresponding proportion, since even proceeding from the Malthus-Ricardo theory of wages it must be admitted that the process of adjusting money wages to the lowest subsistence level is a very long process and does not happen within two to three years prior to an industrial crisis but in ten years. But trade revivals in the course of not more than a few years are sufficient for an industrial crisis to occur. Is it possible to imagine that during these few years real wages can have time to drop to their lowest level? Everyone knows, in fact, that before an industrial crisis sets in, money wages are higher *in toto*, not lower, as would follow according to Rodbertus' theory.

Thus, even if a rise in labor productivity and a reduction in the price of goods actually took place before each industrial crisis, this could not reduce the workers' money wages and, consequently, could not curtail the latter's purchasing power. In other words, improvements in techniques can not be a cause of industrial crises

in the sense suggested by Rodbertus. But this is not enough: in reality industrial crises not only do not follow improvements in technology, but, on the contrary, technological advances follow industrial crises. We mentioned several times above the effects of industrial crises on the techniques of production; we cited the opinions of practical people, manufacturers and factory inspectors, to the effect that important inventions are made and introduced into general use during periods of trade decline, when profits are low and the sale of goods difficult. Periods of trade revival, which directly precede crises and cause them, are characterized not by an acceleration of technical progress and reduction in the price of manufactured products, but, on the contrary, by a deceleration of technical progress and an increase in the prices of manufactured goods. One need only familiarize oneself with the change in the price of cotton cloth from year to year to be convinced of the extent to which Rodbertus' theory distorts the true sequence of the phenomenon: it takes the effect for the cause and the cause for the effect.

In general, for all its logical harmony and persuasiveness, Rodbertus' theory was formed completely *a priori*, completely ignoring actual facts. Which inventions caused the industrial crises of 1825, 1836, 1847, 1857, and the following years. It is interesting that, in describing the history of British crises of the first half of this century (in the first "Social Letter"), Rodbertus himself seems to forget completely his own theory and does not even attempt to show that in periods preceding crises, the share of the working classes in the general national output decreases as a result of an increase in labor productivity. He points out that expansion of production and revival of trade preceded each crisis; this no one denies, of course, but expansion of production still does not mean increase in labor productivity; but, according to Rodbertus's theory, crises are caused not only by the latter circumstance alone but also by the drop in the workers' share in the national output which accompanies it. Rodbertus indicated neither the one nor the other in his account of the history of British crises.

Let us turn now to the latest explanation of crises, which is Sismondi's.

Ricardo and Say contend that human needs are unlimited and, therefore, the demand for every commodity can not lag behind the supply. But, in Sismondi's opinion, this assertion is based upon the following sophism: the concept of unlimited demand for commodities in general is replaced by the idea of unlimited demand for each commodity separately. But if the first thesis is true, then the second is completely false. The demand for individual kinds of goods is always limited, and an increase in the production of them results in their not finding a market.

If the production of all goods suddenly increase, the first result of this will be an increase in the demand for luxury articles and, in general, the better kinds of goods, and a corresponding drop in the demand for the coarser kinds of goods. . . .

Thus, according to Sismondi, every rapid expansion of production must have the following effect on the commodity market: demand for all coarser kinds of goods (necessary articles) should be relatively curtailed and the demand for the more elegant kinds (luxury articles) should increase completely independently of how wages and the workers' share in the general national output change. In other words, expansion of production must always bring about a change in the character of demand and an overproduction of all articles of prime necessity, that is, the vast majority of goods. Consequently, industrial crises are essentially the inevitable result of rapid accumulation of wealth and expansion of production which can not instantly be adapted to the changing demand.

There is no objection to this theory in the abstract. It is possible to acknowledge that rapid expansion of national production has a tendency to change the character of demand in an indicated direction. But does it follow that industrial crises are really caused by this specifically? Not at all.

It still can not be concluded that because one or the other circumstance can cause an industrial crisis, therefore a crisis is actually caused by this circumstance. This can not be done. Just as Sismondi pointed out, the natural tendency toward expanding production is really so insignificant in comparison with other causes of crises that scarcely any significance can be attached to it. Actu-

ally, in contemporary society the bulk of the population is so poorly provided with necessities that the production of the latter can increase many times without causing consumers to turn to other goods of better quality. According to Sismondi's theory, it appears that before a crisis the demand for cotton cloth drops because consumers have completely satisfied their need for cotton and want to buy better kinds of cloth — linen, for example. This can not be said to be true. Silk production suffers from crises no less than cotton, and, consequently, it is impossible to see the cause of crises in the increase of the demand for luxury articles.*

According to Rodbertus' theory, the cause of crises lies in a drop in the share of the working classes in the national output. One can cite as a counterpart of this theory that of J. S. Mill, according to which crises are caused precisely by an increase in the workers' share in the output of labor and a drop in the share of capitalists and industrialists.

"When a country," says Mill, "has for a long time had high production and a large net income, as a source for savings; when, therefore, it has long been able to supply capital with a large annual increase, then one of the attributes of this country's everyday life (if it does not have, as America, a large reserve of still uncultivated fertile land) becomes the fact that the rate of profit there is kept to the very limit of the minimum, and, because of this, the country finds itself on the very borderline of a stationary situation."**

This tendency toward the minimum is caused, according to Mill, by the continuous tendency of the value of wages toward the minimum. If the population does not increase while capital is growing, wages must rise in their real as well as in their monetary form, until profit falls to the lowest limit and the growth of capital stops. But if the population increases, real wages do not increase but the value of them grows owing to the rise in the cost of the workers' foodstuffs (caused, in its turn, by turning to the

* This objection is just as applicable also to Sismondi's two preceding theories.

** John Stuart Mill, *Principles of Political Economy*, Second Edition, St. Petersburg, 1873, II, 265.

cultivation of poor quality land). "Crises occur almost periodically because of the tendency of profits to diminish. When a few years have passed without any crisis, so much capital is accumulated in addition to what there was formerly, that it is impossible to find a use for it at the customary profit: all social funds rise to a high price, the interest on first grade commercial promissory notes drops very low, and all business people complain that there is no profitable turnover. The decrease in all unrisks profits makes people disposed to accept readily all schemes which offer hope of higher profits even at the risk of loss; from this arise the speculations which with subsequent reactions destroy or transfer to foreigners a considerable amount of capital, produce a temporary increase in interest and profits, make room for new accumulations, and then complete the very same circle again."*

Everything that we said above concerning the lack of explanation of industrial crises by the intensification of speculation applies to J. S. Mill's theory.†

Finally, Henry George finds the cause of crises in the field of land rent. According to him, "the main cause of periodic industrial crisis, which obviously is characteristic of each civilized country separately and of all of them as a whole, lies in the speculative increase in the price of land, which curtails the income of labor and capital and checks production."** In a growing society, land rent has a tendency to increase constantly. Each landowner, therefore, counts on an increase in the value of his property without any work or trouble on his part. This gives rise to an inclination toward speculation in land, and prices for land rises to such a limit that agricultural production ceases to justify its cost and its growth is held back. Crisis follows, caused by nothing but a "speculative increase in rent or the cost of land, tantamount to a lockout of workers and capitalists by landowners."†

This theory has such a strong national imprint that it is scarcely

* *Ibid.*, p. 269.

† Prof. Wilh. Neurath also finds the cause of industrial crises in the field of credit.

** Henry George, *Progress and Poverty*, London, 1886, p. 185.

† *Ibid.*, p. 190.

necessary to point out its inapplicability to the explanation of British crises. As we have said before, land property in the United States is actually a favorable object of speculation in periods preceding crises (although it does not follow from this that land speculations constitute the cause and are not a symptom of the onset of crisis). But in England nothing similar to this is observed and consequently George's theory, in any case, can not explain the origin of all industrial crises, not only American but also European, as its author asserts.

CHAPTER VI: CAUSES OF PERIODICITY OF CRISES.

A historical survey of British crises has shown us the periodicity of the ebb and flow of capitalist industry. True, this periodicity is far from a mathematical periodicity: an industrial cycle can expand or contract depending upon the concrete conditions of a given moment. Jevons thought that the cause of the periodicity of industrial crises was to be found in the periodicity of the appearance of sunspots. The unsoundness of all such attempts to relate complicated social phenomena like industrial crises to periodicity observable in nature has already been demonstrated by a simple chronology of crises. For several decades crises occurred in England approximately within the very same intervals of time. The crises of 1825, 1836, and 1847 are divided by eleven intervals; but the next crisis was in 1857 — in 10 years and then in 1866 — in 9 years. The industrial depression of the seventies began in 1873 and ended in 1879; that of the eighties began in 1882 and ended in 1887; and that of the nineties began in 1891 and ended in 1895. There were two periods of crises — 1901-03 and 1908-09 in the first decade of this century. Obviously the industrial cycle began to shorten — during the last three decades of the past century the moments of deepest crisis occurred in 1878, 1886-87, and 1894-95, within intervals of 8-9 years. But then the industrial cycle lengthened — after the crash of 1890, 11 years passed before the crisis of 1901. On the other hand, the latter decade numbers two periods of depression.

Thus, the periodicity of the phases of capitalist industry is not at all of such a rigid nature as Jevons assumes.

Capitalist development is periodic in the sense that it is made up of alternating phases of revival and depression, rise and decline. A capitalist cycle covers roughly (but only roughly) a decade. For several years of each decade industry finds itself in a depression; then there follows a revival which develops until it assumes the nature of stockjobbing, of promotion; this kind of market condition heralds the onset of a reaction which may or may not be accompanied by a panic and stock market crash, depending upon the degree of speculative activity of the preceding years. The existence of this industrial cycle also makes it possible for us to speak of the periodicity of the ebb and flow of capitalist industry, although I repeat once more, this periodicity is not at all of a mathematical nature. As the history of British crises has shown, the capitalist cycle covers a period of 7-11 years.

What then causes this periodicity?

The problem of crises can be solved satisfactorily only on the basis of a correct theory of the market. But since modern economic science, in the vast majority of its representatives, is based on a false theory of the market, it is not at all surprising that the problem of crises also has turned out to be insoluble.

The theory of the market has shown us the complete falsity of the idea that surplus social production in capitalist society is the result of a failure to consume all that has been produced. However, it cannot be denied that general overproduction occurs during periods of industrial stagnation. From the theory of the market which has been expounded, it seems to follow that overproduction can be only partial; the fact that during periods of crises overproduction acquires practically a universal nature requires further explanation. On what basis can general commodity overproduction arise, if the demand for goods is determined by the production, and the supply of every new commodity creates new demands on the market?

In order to understand the nature of general commodity overproduction, it is necessary to compare capitalist economy with the conditions of more primitive economic systems. For example, let us take natural exchange — the exchange of product for product without money as a medium. Let cloth, for example, be exchanged directly for grain. In this case, if, in comparison to cloth,

a surplus of grain has been produced, then its price will fall below that of the cloth, but the price of the cloth will rise above that of the grain; the surplus production of grain will be equivalent to the insufficient production of cloth, the drop in the price of one product will be compensated by the rise in the price of the other. There obviously can be no general overproduction of both products, for the price of both the grain in relation to the cloth and the cloth in relation to the grain cannot fall simultaneously. Like the drop in price, overproduction can in this case be only partial.

Let us now consider a money exchange. Let the price of the grain and cloth express itself in a third commodity — money. Let us assume that more grain has been produced than the producers of cloth need; in this case the money price of the grain drops. This reduction can be so considerable that the general amount of money received by the grain producers diminishes: the grain producer receives less money for a larger quantity of grain. In this way the grain producer's purchasing means is reduced. And since the grain producer buys cloth with these means, the money demand for cloth is also reduced, which leads to a reduction in the price of cloth. And cloth drops in monetary value after the monetary value of grain has fallen.

In other words, there will occur a general increase in the supply of goods as compared to the money demand for it, a general reduction in price; but the general price reduction is felt by the market as an expression of general commodity overproduction.

But in this instance partial overproduction, unequal distribution of the people's labor is the basis of the general commodity overproduction. More of one commodity is produced than is needed — this brings about a drop in its money price; and since there is a well-known connection between the money values of goods, price reductions embrace other commodities also. Thus, in the given instance, general overproduction is nothing else but a peculiar expression, under the conditions of money exchange, of partial overproduction, unequal distribution of social labor.

Thus, in a simple commodity economy, general commodity overproduction is possible, but by no means inevitable. On the contrary, since in a simple commodity economy the people's needs

regulate social production (capital accumulation is not an end in itself), social production, in a commodity economy is just as conservative and changes as little as social consumption. When demand is stable, social production easily achieves proportionate distribution — distribution corresponding to demand. This disturbance of the proportionality is brought about not so much by social, as by external, material causes — for example, by poor harvests due to atmospheric conditions, etc. Thus in a simple commodity economy of small producers, in an harmonious economy, general commodity overproduction is a fortuitous disturbance of the normal course of economic life.

Something else is observed in a competitive capitalist society, where it is not the population's needs but capital accumulation which determines the amount of social production. In a capitalist economy capital accumulation creates a continuous tendency toward the expansion of production. Capital is constantly putting pressure on production, as it were, is striving to push it forward. But, in order to sell goods, there must be a proportionate distribution of social production. But the capitalist economy as a whole is chaotic and disorganized. With social production so disorganized, its expansion under the influence of capital accumulation creates a continuous tendency toward overproduction, which expresses itself in this constant difficulty in finding markets for goods, a continuous excess of the productive forces of capitalism as compared to the possibility of using them, which is so typical of capitalism even in a normal period. Therefore this difficulty of a market is an expression of nothing but the difficulty of achieving proportionate distribution of social production under the conditions of capitalist economy. During a normal period this difficulty does not prevent production from expanding in a capitalist economy. But from time to time it becomes aggravated and then capitalist production temporarily arrives at a kind of state of paralysis — at what is called an industrial crisis.

A circumstance which intensifies these crises is a peculiar instrument of circulation of the capitalist economy — credit. If money establishes the connection between the prices of goods, then credit makes this connection far more intimate. Credit, which rises as

easily as it falls, increases a society's purchasing power many times during a favorable period and collapses instantly at a difficult moment. Thanks to credit all the fluctuations of the economy acquire much greater range and the social economy rises higher only to fall from this greater height.

But credit is only a condition which intensifies crises and is by no means its basic cause. The crises of capitalism are more deeply rooted in the very nature of the capitalist economy. Their inevitability arises from three characteristics of this economic system — from the fact that 1) the capitalist economy is an antagonistic economy in which the worker is simply a means of production for the leaders of capitalist enterprises; 2) in distinction from other antagonistic economies (slavery and feudalism), the capitalist economy has a tendency toward disorganized distribution of production (as a means for accumulating capital); and 3) the capitalist economy as a whole is a disorganized economy which lacks planned distribution of social production among the different branches of labor. Because of these three characteristic features of capitalism, economic crises inevitably arise.

However, this still does not explain the periodicity of industrial crises, of the capitalist cycle. Why do the phases of industrial advance and decline replace each other with such amazing regularity? The answer to this is to be found in the actual history of crises.

One of the most typical characteristics of industrial fluctuations is the movement of the price of iron, which is amazingly regular and coincides with phases of the capitalist cycle: during a phase of industrial upswing the price of iron is invariably high, during a phase of industrial decline it is inevitably low. The prices of other commodities do not fluctuate so regularly at all. This indicates that conditions of demand for iron are intimately related to phases of the capitalist cycle. The phase of industrial advance is, at the same time, the period of increased demand for iron; the phase of depression, of a slackening of this demand. But iron is the material of tools of labor. Demand for means of production as a whole can be judged according to the demand for iron. This means that the ascending phase of the capitalist cycle is charac-

terized by an increase in the demand for the means of production, the declining (phase) — by a slackening in the demand for them.

But the means of production (iron, coal, wood, etc.) are in increased demand when a country's new fixed capital is being created — when new railroads, factories, mills, homes, etc. are being constructed. The phase of upswing is the period of increased building and construction of new industrial enterprises. Recently, phases of advance are usually connected with intensified railroad construction. In the entire world the railroad system has expanded in spurts during which the periods of intensified construction in the whole capitalist world coincides with phases of industrial advance. Railroad construction almost ceases during phases of depression.

According to a correct observation of Nasse, "in the majority of civilized countries the railroad system was created in spurts — not systematically, according to a single plan, but periodically, with the construction at one time ceasing completely, at another proceeding with increased energy."* This connection is particularly obvious in the United States. All American crises of the last decade have been preceded by an exceedingly energetic expansion of the railroad system. The same can be said concerning the last crises in Argentina and Australia.

In England the connection between crises and railroad construction is not so direct. It is easy to prove this regarding two crises: that of 1847 and to a lesser degree that of 1836. Subsequent crises were not brought about by the construction of railroads in England itself. And this is quite understandable. England is such a small country that its need for railroad lines was satisfied very quickly. There was no room, as it were, for further expansion of the railroad system. This only complicated but did not wipe out the connection between English crises and railroad construction. In portraying the history of British crises we have seen how large a role the flow of British capital abroad played in the origin of crises. And since, in those countries to which British capital was

* E. Nasse, "Die Verhütung der Produktionskrisen durch staatliche Fürsorge," *Jahrbuch. für Gesetzgebung etc. im Deutschen Reich*, 111, 153.

sent, the construction of railroads was the most important form of investment for capital, indirectly, British crises too have been brought about by the expansion of the world's railroad network.

Another distinctive feature of many crises is increased speculation in real estate, particularly in urban land. In the United States crises are almost always preceded by an extraordinary expansion in purchases of state lands and the great increase in land prices resulting from this; this is such a typical feature of American crises that Henry George based his particular theory of crises on it, as has been shown. But, of course, to see the principle cause of crises in the periodic rise in land prices means simplifying the matter to an extraordinary degree. Speculations in the purchase of land during a period of industrial activity is very typical but only as a symptom of intensified expansion of a country's fixed capital. It is much more a symptom of the illness than its cause.

Speculations in urban real estate and the building fever reached enormous proportions in Vienna on the eve of the famous crash of May, 1873; in Berlin, during the same period; in Australia and Argentina, at the end of the eighties, etc. True, in England itself speculations of this kind do not play a large part as moments which cause crisis. But here we must remember once again that British capital plays a part in the speculations of almost all other countries. England is the heart of the capitalist world, and, therefore, everything that occurs at any spot in the world economy is reflected immediately in England also.

It can hardly be disputed, however, that what the British call "investment," investment of capital takes place during periods of industrial activity. The most common characteristic feature of this condition of the national economy which precedes crises and one which is given again and again in all descriptions of crises by all historians of them, lies in the expression the "mania for founding (something)." At this time they all vie with each other in hurrying to invest their free resources in some kind of enterprise, and smart market operators take advantage of these occasions to profit at the expense of an over-trusting public.

Promotion — the setting-up of an enormous number of new enterprises — precedes every crisis without fail. But promotion is

really nothing other than the creation of a country's new fixed capital.

The following statistics of stock exchange quotations (government securities, bonds, shares, etc.) in millions of pounds sterling, which I extracted from the annual surveys of the London *Economist*, can give some idea of the connection between crises and the creation of new fixed capital in general:

Year	Million Pounds Sterling	Year	Million Pounds Sterling	Year	Million Pounds Sterling
1870	92.3	1880	122.2	1887	111.2
1872	151.6	1881	189.4	1888	160.3
1873	154.7	1882	145.6	1889	207.0
1874	114.2	1883	81.2	1890	142.6
1875	62.7	1884	109.0	1891	104.6
1876	43.2	1885	78.0	1892	81.1
1877	51.5	1886	101.9	1893	49.1
1878	59.2				
1879	56.5				

Year	Million Pounds Sterling	Year	Million Pounds Sterling	Year	Million Pounds Sterling
1894	91.8	1904	123.0	1910	267.4
1895	104.7	1905	167.2	1911	191.8
1896	152.7	1906	120.2		
1897	157.3	1907	123.6		
1898	150.3	1908	192.2		
1899	133.2	1909	182.4		
1900	165.5				
1901	159.4				
1902	153.8				
1903	108.5				

In this table the years are arranged according to industrial cycles. It is easy to see that the early years of each industrial cycle are characterized by an increase in the issuance of shares; but only a few years are required for the issuance of shares to reach its peak. However the regularity of this picture is obscured by the fact that the issuance of securities takes place not only for industrial purposes (state, municipal, and other loans).

Fluctuations in the number of newly-established joint-stock companies, cited earlier in the account of the history of individual

crises, also illustrate clearly the connection between crises and promotion. Finally, statistics on unemployed workers, of which I shall speak in a subsequent chapter, reveal that just those branches which create fixed capital are most susceptible to fluctuations. Llewellyn Smith, chief of labor statistics of the British Ministry of Trade, presented interesting evidence on this question before the Parliamentary Commission of 1895. In Smith's words "cyclical fluctuations have a particularly great influence upon such industries as shipbuilding, manufacturing of machinery and similar kinds of work, which Walter Bagehot called 'instrumental' (instrumental trades). The general volume of a country's production fluctuates little from year to year . . . but even these insignificant fluctuations are sufficient to cause great shocks (violent oscillations) in industries which manufacture tools of production."*

Why is it that years of intensified creation of fixed capital are at the same time years of general industrial activity, and years when the expansion of fixed capital stops, years of general depression? It is because all branches of industry are so closely connected.

By the mere fact of its existence, each industry gives rise to a demand for other goods. You cannot produce something from nothing; in order to produce new goods, it is necessary to acquire raw materials, tools, consumers' goods for workers. The expansion of production in each branch of labor always increases the demand for goods which are produced in other branches of labor; a spurt toward increased production passes from one branch of labor to another, and, therefore, the expansion of production is always contagious and tends to embrace the entire national economy. The demand for all goods rises sharply during periods when new fixed capital is being created.

In order to build a factory or railroad, it is necessary to buy building material (wood, brick, iron, etc.) and acquire various machinery, hire workers, etc. Like machinery, building material does not fall from the sky but is produced by other branches of industry. An increase in workers' earnings increases the workers'

* Llewellyn Smith, *Third Report from the Select Committee on Distress from Want of Employment*, 1895.

demand for the objects which they consume, food, clothing, furniture, etc.

Demand for consumers' goods of higher grades likewise grows, since general industrial activity increases the owners' incomes. Thus, little by little all of the country's industry, the entire commodity market, reached an enlivened state thanks to the fact that new fixed capital is created — new railroad lines are laid, factories and houses are constructed, ships are built, etc.*

But why then does fixed capital expand not gradually but by periodic jolts? Let us take a look at the mechanism of the accumulation of capital.

It has been stated above that, under modern conditions of the economy, free capital not committed to any branch of industry is quickly accumulated in every rich capitalist country. This capital appears on the money market in the form of loanable capital. It is made up of the saved part of the incomes of the most diverse social classes and from the ready cash which any entrepreneur or a rich man has at his disposal. Thanks to banks, reservoirs for absorbing and investing free capital, every person obtains the possibility of converting his cash on hand, which is not needed for current expenses (and sometimes, owing to human custom, even all cash on hand), into capital. For this one need only put into the bank free money in the form of a deposit in a current account. But the principal part of loanable capital on the market is not the available cash of individuals but the saved part of the national income which is not invested where it originated. The growth of loanable capital is by no means the same as the growth of productive capital. As Marx correctly pointed out "each increase in loanable capital does not indicate the accumulation of real capital or expansion of the process of the reproduction of capital at all."** The clearest distinction is that between productive and money capital in state loans. The government contracts a loan for non-productive purposes. The capitalists who lend the required money capital are the state's creditors. When the state

* See Marx, *Das Kapital*, II, 231-232.

** *Das Kapital*, Book III, Part II, p. 22.

spends this sum, the capital of the state's creditors is not reduced, although the country's real productive capital disappears in a case of non-productive expenditure of the sums received. An owner of government securities in reality has the right to appropriate for his own use a certain share of the country's surplus production. "The accumulation of capital of the state debt is nothing but the growth of a class of state creditors who acquire the right to a certain amount of the tax" (Marx). An increase in the state debt apparently does not indicate an increase in the country's real capital, and meanwhile the bonds on the money market are exactly the same capital as either the bonds or stocks of an industrial enterprise which represented productive capital in its material form.

Thus the accumulation of money capital is something completely different from the real growth of production and productive capital. Money capital can be accumulated both during expansion and depression and even during a curtailment of production. And it not only can but actually is accumulated.

In a capitalist society there is a whole series of incomes whose size does not depend or depends very little upon the state of national production. Of all categories of the national income, the entrepreneurs' profit fluctuates most from year to year, depending upon the state of trade and industry, then follow workers' wages. These two forms of income rise when production is expanded and industry enlivened and fall during a period of commercial stagnation. But income based not upon a person's work but only upon ownership of land or some kind of capital, scarcely fall under the influence of the fluctuations of industry. Thus, for example, the interest on state loans, mortgages, bonds, etc. is paid just as punctually, as a general rule, in depression years as in years of industrial activity. Land rent can change a great deal over extended periods (thus, for example, land rent has fallen considerably during the past 20 years), but short-term fluctuations of commerce and industry can have no effect on it because leases are usually contracted for more extended periods.

Income of this kind make up a large part of the national income. Thus, in England, so far as can be judged from income tax statistics, incomes from land, houses, state loans, foreign and colonial loans

constitute a little less than half of the entire national income which is taxed.

Thus, in England, as in every other capitalist country, a whole series of incomes is completely independent of the fluctuations of industry or depend very little upon them. There is no basis for thinking that during a period of industrial decline, *rentiers* of different kinds turn a smaller part of the income into money capital than during a period of industrial activity. On the contrary, during a trade depression commodity prices are low and the cost of living and of all kinds of expenses in general fall, and therefore the "savings" of *rentiers*, as generally of all those who have a steady income (civil servants, pensioners, etc.), tend to increase. But on the other hand during a period of industrial depression, the savings of the rest of the population, entrepreneurs and workers, must diminish sharply. In any case the accumulation of money capital proceeds more evenly than the expansion of production: capital is accumulated continuously, but production expands in spurts.

When describing individual crises, we repeatedly have had to call the reader's attention to the fact that an extraordinary growth of bank reserves is observed during depression years. The deposits of banks also increase a great deal during a depression. This indicates accumulation of money capital which is not invested in industry. The low discount rate, which always follows the liquidations of an industrial crisis and stubbornly prevails on the loan market for a number of years, is evidence of the abundance of uninvested capital. In general, just as the years of industrial upswing are periods of intensified capital investment, of its transition from a free to a fixed state, so the years of depression represent the period of accumulation of free, disposable money capital.

This is so obvious that many economists (particularly J. S. Mill) have held that the reduction in the discount rate, which brings about speculation on the money market and consequent crash, is the direct cause of crises.

But, of course, fluctuations in the discount rate are only a reflection on the surface of the money market of deeper changes in the capitalist economy — changes which Mill does not explain at all.

In any case Mill is completely correct when he turned his attention to the connection between a low discount rate and speculations. Many witnesses who gave evidence before the Parliamentary Commission of 1832, which studied the 1825 crisis, explained the crises by the conversions of the state debt which lowered the profitability of state securities. Several witnesses before the Parliamentary Commission of 1848 in the very same way cited the 1847 crisis in connection with the unusually low discount rate during the period of 1843-44. In general the discount rate is usually low during the period directly preceding an industrial upswing.

Thus there is a continuous increase in money loan capital; but the expansion of production and the investment of this capital in industry meets obstacles which the accumulating capital has to overcome. The existence of such obstacles cannot be doubted. During depression years the market is filled to overflowing with money capital which cannot be turned into productive capital because, as was shown above, the expansion of production without loss to the producer requires a certain proportionality in the investment of capital. If the free loanable capital were distributed proportionately between all branches of industry, then production would proceed without any glutting of the commodity market. But with the national economy disorganized, proportionate investment of free capital runs into great economic and technical difficulties. The following situation is created. Free money capital is accumulated, and it desperately seeks investment and cannot find it. Uninvested capital does not yield its owners an income and therefore it is quite understandable that the greater this capital, the more energetically it strives to penetrate into industry. On the one hand, industry resists accepting new capital; on the other hand, capital keeps putting more and more pressure on it. Finally so much free capital is accumulated that industry's resistance is overcome, capital penetrates into industry and finds a place to be invested. A new period of industrial advance sets in.

In expanding production the first step is difficult; but owing to the interdependence of all branches of industry, the expansion of production tends to spread like an epidemic from one branch to another, until it covers the entire national economy. Free money

capital (for example, that which is lying in the bank in the form of a deposit and is not spent by the bank for discounting notes, etc.) represents latent purchasing power. This purchasing power, which has accumulated during the years of industrial depression, has no effect upon the commodity market while money capital remains free. But as soon as capital is invested in one or another form, all of this latent purchasing power at once passes into an active state. The capital breaks up, that is, it is spent on purchasing different commodities. A rapid creation of new fixed capital occurs which calls forth an increased demand for means of production as well as for consumer goods. Industry seems suddenly to discover a new market; this market is created by the expansion of production — by the spending of tens and hundreds of millions of the capital which was lying idle in the banks' tills. For industry it is a matter of indifference what caused the sudden increase in demand. The only important thing is that the demand has actually been increased by the whole amount of capital which was accumulated and is now being spent. Commodity prices rise and production is expanded all along the line.

Several years pass in this way. The capital which had been accumulated previously is spent little by little. True, the expansion of production created vast new capital. But the market rapidly absorbs this capital since everyone strives to take advantage of the favorable situation, goods find a market, and every entrepreneur tries to invest in business all of the capital which he can lay his hands on. All reserves of capital are put to work. The energetic investment of capital is indicated by the extraordinary expansion of credit, so typical of this period. Just as before the possessors of loanable capital were continuously offering it to businessmen but found few who wished to use their capital, so now the demand for money capital by far exceeds its supply.

Increase in the discount rate, usually observed at the end of a phase of industrial upswing, is a true sign that there is not enough free loan capital in the country for the needs of industry. To the general surprise, it turns out at this time that money has suddenly "risen in price"; actually it is not money but loan capital which has become dearer and it has become dearer because little free, unused capital is left on the loan market.

It is very typical that stock market crises preceded industrial crises by many months.

Thus, before the industrial crisis of 1836 there was the stock market crises of 1835; before the industrial crisis of 1847 there was the financial crisis of 1845; the stock market crises of 1856 and May, 1873 preceded the industrial crises of 1857 and 1873. The crash of Bering in 1890 preceded the industrial depression of 1893. This is explained in the following way: a stock market crisis means that free money capital ceases to flow into the stock exchange and to increase the securities' exchange rate. When a surplus of money capital is offered, then the rate of exchange of stock market prices is high. When little free money capital remains, the stock market rates must inevitably fall. Therefore, a stock market crisis serves as a signal that the flow of capital into the stock market has come to a halt, that free capital is almost exhausted. Nevertheless industry still can remain in an active state for some time, since industrial activity is propped up by the expenditure of disposable capital, and capital is spent not suddenly, not at once, but gradually. Thus, for example, in England already in 1845 speculation in railroad shares ended with the fall of their exchange rate and the flow of capital to the railroads slowed down; but the expenditure of the capital only began at this time.

When the expenditure of capital comes to an end, then an industrial crisis follows, which took place in England at the end of 1847. In a similar way the Viennese crash of May, 1873 immediately brought about a drop in stock market prices throughout all Europe. The amount of newly issued securities was severely cut in the whole world, but even in 1874 British industry was not in a depressed state; the expenditure of money capital had not yet ended. It was only several years after the crisis began that British industry felt it completely.

In the same way the Bering crash in the beginning affected only the stock market; the market found it difficult to place new issues of stock. Industry became depressed considerably later, however, when the expansion of real capital was reduced.

The statistics on stock issues cited above indicates the same thing. The issues reached a peak in England in 1874; but the in-

dustrial depression followed much later. At the beginning of the eighties the issues are at a maximum (in 1881 — a year or two before the crisis); in the second half of the 80's the same maximum falls in 1889 — a year before the Bering crash and several years before the beginning of an industrial decline.

Why is it that an industrial advance always ends with a reaction and decline? Firstly, because of the fact that the expansion of production uses up the free capital, the free, unfettered purchasing power whose accumulation on the money market was the direct cause of its activity. While a railroad is being built, its construction creates a demand for a vast quantity of goods. But a railroad system cannot expand each year with the same speed as it does during periods of industrial advance. This would require a capital more enormous than any single country has at its disposal. We have seen in the history of the American crisis of 1873 that the inability to realize new railroad loans on the European and American money markets was the first step toward a crisis. Capital was exhausted — and construction had to be curtailed. Secondly, the high commodity prices and high profits which accompany years of industrial activity cannot help but cause an expansion of credit and speculation of every kind. A favorable commodity market leads inevitably, within a certain time, to a state of speculative excitement. High profits are like an intoxicating drink, the consumption of which in great quantity can knock the sense out of the head of the most steady and reasonable man. And if the British commodity market is not experiencing anything like the speculations of former times, it is only because the intensity of industrial activity in the England of our day does not achieve its former proportions.

As Juglar quite correctly noted, the periodic fluctuations of industry are linked directly to the periodic fluctuations of commodity prices. The years of industrial upswing are years of high prices, the years of depression, years of low prices. An industrial depression manifests itself and is directly brought about by a drop in commodity prices. To explain the periodic changes in commodity prices means to explain the periodicity of crises.

After all that has been said this explanation cannot meet with difficulties. Industrial expansion is caused by the fact that money

capital accumulated during the preceding years and representing purchasing power in a potential form is spent, creating a new demand for goods. Therefore prices rise. Under favorable market conditions, the increase in prices rapidly passes reasonable limits and degenerates into speculation which is followed by a crash. But even if the price rises are not large enough to cause a crash, a reaction must inevitably set in.

Actually the capital previously amassed must be spent sometime. During a period of expansion, new fixed capital is created. The entire industry of the country takes a peculiar turn: the production of capital equipment is greatly increased. Iron, machinery, instruments, ships and building materials are both demanded and produced in increased quantities. But then the expansion of fixed capital is completed, factories have been built and railroads laid. The demand for all the materials which make up fixed capital ceases. The distribution of production becomes disproportionate: fewer machines, instruments, less iron, bricks and wood are required than previously owing to the fact that fewer new enterprises come into being. But since the producers of the means of production cannot take capital out of their enterprises and in addition the very enormity of this capital, in the form of buildings, machinery, etc., required the continuation of production (otherwise the owners will lose interest on the idle capital), overproduction of capital goods becomes inevitable. Because of the interdependence of all branches of industry, partial overproduction becomes general, the prices of all commodities drop and a general depression sets in.

In this way a general disorganization of trade directly follows its increased activity, and the industrial cycle comes to an end with a depression. During the depression, free money capital accumulates; there follows a new period of industrial activity when this capital is spent, then a crisis, etc., etc.

The operation of the whole mechanism can be compared with the steam engine. The accumulation of free money capital plays the role of the steam in the cylinder; when the pressure of the steam on the piston reaches a certain fixed norm, the resistance of the piston is overcome, the piston moves, reaches the end of the

cylinder, a free way out opens for the steam and the piston returns to its former place. In the same way accumulated free money capital, having reached certain proportions, makes its way into industry, moves it, is spent and industry again returns to its former state. It is natural that under such conditions crises must recur periodically. Capitalist industry must continuously traverse the same cycle of development.

The existence of foreign trade makes this process still more complicated. For a country like England which imports enormous quantities of goods from abroad, the foreign market is absolutely necessary. In England free capital is very quickly accumulated, but expansion of production in England is impossible without a corresponding increase in the demand for British goods abroad. This barrier is gotten round, as Sismondi pointed out in *Nouveaux Principes d'Economie Politique*, in the following way. When the accumulation of free British capital reaches a certain degree of intensity, this capital is invested in the following manner: part of it remains in the country and is spent there on the expansion of production; the other part flows abroad in the form of loans to foreign countries or for the construction in other countries of industrial enterprises, railroads, etc. This transfer of capital to foreign markets is a constant symptom of industrial activity in England. But emigrating capital is not lost to British industry. It creates a demand abroad for British goods and in this way that part of the national capital which remained at home finds a productive use for itself. When free capital has been used up in England and stops flowing into countries importing British goods, then these countries lose their purchasing power, the growth of British export stops, and an industrial crisis sets in in England.

Foreign trade has disguised somewhat the real causes of previous British crises. During the early decades of the 19th century, the cotton industry suffered most from crises, an industry which manufactures not capital goods but consumers' goods. Nevertheless then as now, the cause of industrial advance lay in the creation of new fixed capital. Since England enjoyed an industrial monopoly, but at the same time owing to the unwieldiness of machinery encountered great difficulty in exporting them due to the poor develop-

ment of steam transport (exportation of machinery from England was even forbidden before 1842), it is natural that the increased demand for commodities abroad, created by the construction in these countries of new enterprises with British capital, was reflected in the exporting from England not of capital goods but of British manufactured goods — mainly textiles. Thus the upswing and crisis of 1825 expressed itself in an enormous expansion and then a drop in the export of British cotton textiles to Central and South America. Why is it that the demand for British textiles increased in America? Because the influx of British capital led to the formation, in that country, of a great number of new enterprises, that is, it led to the creation of new fixed capital which caused an increase in the demand for all kinds of goods, among them textiles. Now England has lost its industrial monopoly and the export of capital goods has lessened and we saw above that in recent times major fluctuations are to be observed especially in the export from England of capital goods.

The capitalist world is subject to its own special laws, which operate with an elemental force. So-called common sense is a poor guide to the understanding of these laws. From the point of view of common sense production is a means to consumption. Actually in the capitalist economy the relation of production and consumption is exactly reversed. It is not consumption which governs production in a capitalist society but production which governs consumption. The periodic ebb and flow of industry is caused not by the laws of consumption but by the laws of production. Production is expanded during years of upswing not because consumption increases during this period, but, on the contrary, consumption increases during this period precisely because production is expanded. The capitalist world is an evolving and exceedingly complicated system, whose atom is the individual. Each individual person is governed in his own economic activity by his own personal interests; for each participant in production, consumption is the end and production the means. But out of the totality of individual wills, independent of each other, there is created something qualitatively new — the elemental complex of the capitalist economy, without consciousness, governed by no will, imbued with no idea, but, nevertheless, harmonious, firm and regular.

The laws of motion of this complex are not determined by the wills of the separate individuals which form it; on the contrary, each separate individual is subject to these laws. On the basis of the antinomies of the living individual with his aims and aspirations and of the capitalist complex, obedient to its own laws and disregarding the interests of this individual — on this basis are engendered the contradictions of the capitalist system.

The causes of the changes of the industrial fluctuations in England lie mainly in the fact that England has lost its former industrial hegemony in the capitalist world; at the present time the phase of industrial expansion does not express itself so sharply as before and therefore the subsequent slump moves more gradually. Countries with a rapidly developing industry, like the United States and Germany, for example, are now experiencing the same severe industrial crises as England experienced in former times. Thus Germany went through a very severe crisis in 1900, and the United States in 1907.

For a long time economic science failed to solve the problems of crises because economists sought the causes of crises in one or another separate sphere of the economy, in the area of production, exchange, or distribution; actually crises arise from the whole aggregate of occurrences in the social economy and therefore cannot be timed to one particular area of it. As the circulation of social capital, which leads inevitably to the capitalist cycle and crises, includes production, so it also includes exchange and distribution. Capital changes successively from one form into another, in this way surmounting specific difficulties of the given economy — capitalism. Crises and the capitalist cycle are engendered in the soil of overcoming these difficulties, thanks to the processes whose nature has just been explained.

What were the internal causes of the last American crisis? There is almost no agreement on this question. We read, for example, in *National Economic Annual*, a leading German economic journal, "The industrial advance (of America) was too rapid for the accumulation of capital to keep pace with it. Other factors could not cause such a violent shock to the economic organism of North America as that which occurred in the autumn of 1907

owing to the discrepancy between the formation and consumption of capital.”* “The change which set in before the panic,” says Hasenkampf, author of a book on the American crisis, “was caused by the fact that during the last decade economic development outstripped the formation of capital. Too much working capital was converted into fixed capital. . . Furthermore, too large an amount of capital was actually wiped out.”** In general, almost all of the numerous articles in the special periodic press of England, America, Germany and France, devoted to the American crisis, point out with surprising unanimity that the most profound cause of the crisis was the lack of free capital.

Thus, it was not an abundance of disposable capital, which had not been invested, but a deficiency of capital which caused the last world crisis (as well as the preceding crisis). From this it is obvious how groundless is the theory of surplus capital in the capitalist economy. Even America, which attracts the capital of old capitalist countries, does not have too much capital, but too little to feed its industry during the ascending phase of the capitalistic cycle.

However, from the point of view of the theory of crises which has been set forth here, it is obviously difficult to explain the absence of an industrial crisis in America in the beginning of this century, and generally the fact that American phases of industrial advance usually last longer than European. Of course in America the development of industry proceeds at a much swifter tempo than in Europe. This obviously should have led to more frequent crises. However America copes with crises more easily than Europe and almost avoided the widespread crisis at the beginning of this century.

However, it is precisely here that the expounded theory finds its confirmation. Crises are caused by the fact that during the phase of expansion consumption of capital proceeds more rapidly than its formation; therefore the smaller the capital which a country has at its disposal for the support of its industry during an upswing, the sooner the upswing must come to an end. But the old

* *Jahrbücher für Nationalökonomie*, III, F. T. 35, 3rd issue, p. 832-33.

** Hasenkampf, *Die wirtschaftliche Krisis des Jahres 1907 in den Vereinigten Staaten von Amerika*, 1908, p. 51-52.

capitalist countries invest only a part of their capital at home, the rest goes abroad. On the other hand, the United States works not only with its own but also with foreign capital, capital flows to it from other countries. In this influx of foreign capital lies the essential advantage of America over Europe, in the regard considered. It is precisely the influx of European capital, as Lescure points out, which helped America to avoid a crisis at the beginning of the present century.*

In a certain sense it can be said that the basic cause of crises is the poverty of the people, the low level of demand of the working classes. Actually, the formation of surplus capital and the saving in general of a large part of the national income is caused directly by the insignificant share of the working masses in the products which they produce. If it were not necessary to find investment for new capital, if production did not attain intensified development thanks to the plowing back of profits, then proportionate distribution of production would not meet with any difficulties. In that case production would be governed directly by consumption, as in the economy of small commodity producers. The accumulation of capital by capitalists presupposes that the surplus value is assimilated by persons who do not participate in producing it — that the producer is robbed of a part of the product which he creates. The smaller the worker's share, the higher the capitalist's

* The theory of crises set forth in the text is organically connected with the theory of markets developed in the preceding chapter, both theories stand and fall together. However, they have had very varied success in scientific circles. The theory of the market has met with no sympathy and has been accepted by very few (among them Prof. Spiethoff should be noted; see his article "Die Krisentheorien von Tugan-Baranowsky und Pohle," (*Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft*, 1903); the theory of crises, on the other hand, won supporters very quickly and lay at the basis of the investigations of Spiethoff, Pohle, Eulenburg and others, who adopted it as a whole or in a large part. Proceeding from it, Lescure, in his extensive study of the history of crises, tried to explain industrial crises in other countries beside England. In his report on the German crisis of 1900, read at a meeting of the "Union of Social Politics" in 1903, even Sombart, who disagreed with it, acknowledged it as an "extraordinary step forward and undoubtedly the highest form of the theory of crises" (see *Schriften des Vereins für Socialpolitik*, V. 113, *Verhandlungen der Generalversammlung* in Hamburg, 1904, p. 130.) Meanwhile, as has been stated, one theory presumes the other; if the theory of crises is accepted, then its logical basis, the theory of markets, must be accepted, however paradoxical this latter theory may seem to those who have not adequately studied the laws of the capitalist economy.

share, and the more quickly is the capital accumulated, by necessity accompanied by shocks and crises.

Thus the poverty of the popular masses, poverty not in the absolute but in the relative sense, in the sense of the insignificance of the worker's share in the general national output, is a necessary condition of industrial crises. But the connection between poverty and crises must be clearly understood. The widespread view (which Marx also shared to a certain degree) that the low level of popular consumption and slowness with which this level is raised make it impossible to realize the products of ever-expanding capitalist production. We have seen that production itself creates the market, consumption is only one aspect of capitalist production. If production were organized according to plan, if the market possessed full knowledge of the demand and the power to distribute production proportionately, to transfer labor and capital freely from one branch of industry to another, then, however low consumption might be, the supply of goods could not exceed the demand. But, under the complete disorganization of national production, under the anarchy which governs the commodity market, the accumulation of capital inevitably leads to crises.

Planned organization of labor in a capitalist factory raises its productivity to an enormous degree. Only capitalism has put technology on a scientific basis, has perfected techniques through the law of producers' competition. But the technical powers of modern industry cannot be spread throughout the whole world because of social barriers against which they clash, owing to the disorganization of the entire national production. This is also a source of the inevitability of crises.

M. I. TUHAN-BARANOVSKY AND WESTERN EUROPEAN ECONOMIC THOUGHT*

(Speech on the 5th Anniversary of his death)

V. P. TIMOSHENKO

Five years have passed since the hard conditions of life in the Ukraine occasioned the death of Mykhaylo Ivanovych Tuhán-Baranovsky.** His untimely death was a severe blow to Ukrainian economic science, whose ranks Tuhán-Baranovsky joined in the last years of his life, or, more correctly, the leadership of which he assumed when he became Head of the Social Sciences Department of the Ukrainian Academy of Sciences and first Dean of the Faculty of Law and Social Sciences in the Ukrainian State University of Kiev. His death was a blow not only to Ukrainian science, but to Russian science as well, since Tuhán-Baranovsky had devoted nearly 30 years of life to it. It was also a considerable loss to Western European, that is to say, the world science of economics. For it can definitely be asserted that no other Slav economist had up to this time entered into such close relations with Western European economic science and enriched it with so many ideas of his own, as did M. I. Tuhán-Baranovsky.

My task is to indicate the main lines of this relationship and of the influence of the works of Tuhán-Baranovsky upon European economic thought. I cannot pretend to be able to give this problem a complete solution. This would require a major work, encompassing studies not only of the many extensive works of Tuhán-Baranovsky published in various European languages, but also the whole

Editor's note: The author's footnotes (as per original) are marked with consecutive numbers. Notes marked with symbols are by the editor.

* This paper is taken from *Naukovy yuvileyny zbirnyk ukrayinskoho universytetu v Prazi*, prysvyacheny Prez. CSR Dr. T. G. Masarykovi (Scientific Jubilee Collection of the Ukrainian University in Prague, dedicated to the President of the Republic of Czechoslovakia, Prof. Dr. T. G. Masaryk, on the 75th anniversary of his birth), Part I, Prague, 1925.

** Mykhaylo Ivanovych Tuhán-Baranovsky, 1865-1919. The author of the paper refers to the subject of his speech in the tone of familiarity "Mykhaylo Ivanovych," having been a close associate of his. This has been changed to "Tuhán-Baranovsky."

series of his lesser works, which are contained in many monthlies and periodicals; moreover, it would be necessary to learn the entire Western European literature of economics on those problems which Tuhan-Baranovsky subjected to a detailed analysis in his works. I will merely indicate the main points.

What was the state of Western European economic science when in the late 1880's Tuhan-Baranovsky, then quite a young man, entered the field of economics? European theoretical thought in economic science had begun to move at more lively pace, after having more or less stood still since the 1840's when J. S. Mill had completed formulating the ideas of the Classical school. From that time and over the next few decades, constructive theoretical work in economic science slowed down, giving way to the preparation of socialist criticism of classical economics and to the accumulation of factual material by the Historical school. However, the latter rejected all abstract theoretical construction in the science of economics. There was a revived interest in theoretical work only in the 1870's, when again constructive theoretical thought predominated over criticism and over negation of abstract economic theory.

Two currents developed in the 1870's which had the greatest influence on the future course of theoretical economic thought. Simultaneously in several countries, the so-called psychological trend with its abstract-deductive method in economic science came to life. The works of Stanley Jevons* in England and Karl Menger** in Austria, followed by the entire so-called Austrian school of economics, made their appearance. On the reverse side of the picture is Karl Marx who, with his fundamental work *Das Kapital*, erected his mighty system. He utilized all that had previously been done by the Classical school of economics, assimilating all the critical work performed previously by socialists as well as the positive elements of the Historical school. Both trends quickened the lively pace of constructive work in economic theory. But from the very beginning they applied basically different methods of research: one trend adopted the abstract-individualistic method,

* William Stanley Jevons (1835-1882).

** Karl Menger (1840-1921).

completely neglecting the historical approach and did not pay sufficient attention to the great importance of social relations in economic life. The second trend, on the contrary, started with a concept of the economic life as a unity and a social phenomenon, and, although it built an abstract-theoretical system, it was thoroughly permeated with historical tradition. Both systems were created by great scientific minds and both attracted with equal force young economists, who were just starting in the field of independent scientific research. One attracted with its logical, elegant, and crystal-clear formulations and constructions; the other, although more difficult to master because of its many internal contradictions, attracted with the force and depth of its ideas, with its attempt to comprehend the entire economic life, and even the entire social life, from the single principle of labor. At the same time it emphasized a social understanding of economic phenomena.

This was the state of economic science in the West when Tuhán-Baranovsky began to work in the late 1880's. In Russia the 1890's were a period when that second trend of economic thought, Marxism, attracted almost all the young people; the first trend receded and had very little influence on theoretical economic ideas in Russia. Tuhán-Baranovsky was closer to that second current. The majority of the young people interested in economic problems absorbed Marx' ideas without criticism and without any independent reworking. They followed the strict pattern of these ideas and were thus unable to introduce anything new or of their own, but Tuhán-Baranovsky from the very beginning assumed an independent position. He reworked these new ideas and erected his independent construction on this base. What is more, Tuhán-Baranovsky from the very beginning and in his very first work chose his own line, which did not wholly coincide with either of the two currents. In his very first published work "Ucheniye o predelnoi poleznosti khozyastvennykh blag" (Study of Marginal Utility of Economic Goods), in *Yuridicheski vestnik* (Juridical Herald) in 1890, Tuhán-Baranovsky developed the idea that in the theory of marginal utility, the basic contribution to economic science made by the Psychological-Individualistic school, there is no contradiction of the labor theory of value as formulated by Ricardo.

This attempt to reconcile the basic points of two currents of economic ideas was not an eclectic manifestation on Tuhon-Baranovsky's part. On the contrary, he only perceived in the two theories two different views of the same process. While highly esteeming the significance of the theory of marginal utility — he later admitted¹ that this theory would always remain the basis of the study of value — Tuhon-Baranovsky at the same time saw its fundamental deficiency: it did not explain the underlying fact which had a decisive meaning for the solution of the problem of value, i.e. it did not answer the question as to what objective factors control the extent of production of economic goods, whose production is free to increase, depending on further application of labor; and for what reasons some goods are produced in small, and others, in abundant quantities. It is precisely this factor (the extent of production) which has the final influence on marginal utility and, at the same time, on the value of goods. Perceiving that the theory of marginal utility could not explain this basic fact of economic life, Tuhon-Baranovsky proposed his synthesis of positive conclusions of the theory of marginal utility with the conclusions of the labor theory of value. He saw the dual nature of the economic process and also the fact that this process is neither exclusively subjective, nor exclusively objective, but includes both elements, because it is nothing more than mutuality of influence between the subject (economic man) and the object (external nature).²

Tuhon-Baranovsky did not doubt that the extent of production of goods is related to the labor cost of their production and immediately proceeds to explain that the basic task of the economic process is the striking of a balance between the cost of goods and their utility or need for them; that it is necessary to make an economic decision based upon economic principles in such a manner that labor and other cost factors would be allocated in production according to the utilities of produced goods. Thus such a plan is chiefly a plan of allocation of labor, by reason of which the labor

¹ M. I. Tuhon-Baranovsky, *Osnovy politicheskoi ekonomii* (Principles of Political Economy), 3d ed., p. 64.

² *Ibid.*, p. 57.

outlays in production are basic facts of the economic process which cannot remain without influence upon the cost of goods. Tuhán-Baranovsky concluded that under a system of rational distribution of production, which conforms to economic principles, marginal utilities of products must be in proportion to labor costs of the latter, and, at the same time, labor costs or values of goods play a decisive role in determining an economic plan of apportioning production among the various branches.

Thus, Tuhán-Baranovsky arrived at a harmonious synthesis of the two basic currents of economic science. We shall discuss this at length, because it is precisely this resolution of the conflict between two currents of economic theory, as indicated by Tuhán-Baranovsky, which subsequently became widely accepted in Western European economic literature. This tendency was developed in England by two economists of the greatest influence, Marshall and Edgeworth.* A. Marshall was the acknowledged head of contemporary English economic science and one of the most influential economists not only in England but in the economic science of the whole world. H. Dietzel,** an able economist of fine discernment, was the first to develop this viewpoint in Germany.³

In his *Theoretische Socialökonomik* of 1895, Dietzel claimed precedence in this respect before Marshall and Edgeworth,⁴ who were credited with it by Boehm-Bawerk.[†] In reality, the first to develop this thought in this direction was M. I. Tuhán-Baranovsky in his youthful work of 1890. Moreover, his more precise formulation of the problem was so clear and accurate that it could, without too much difficulty, be translated into terms of a mathematical formula by the Russian mathematician Stolyarov.⁵

* Alfred Marshall (1842-1924); Francis Y. Edgeworth (1845-1926).

** Heinrich Dietzel (1857-1935).

³ In an article "Die classische Werththeorie und die Theorie vom Grenznutzen," (Conrad's *Jahrbuecher*, Bd. XX, N.F., S. 561 ff.).

⁴ H. Dietzel, *Theoretische Socialökonomik*, 1895, p. 205.

[†] Eugen v. Boehm-Bawerk (1851-1914).

⁵ G. Stolyarov, *Analiticheskoye dokazatel'stvo predlozhennoi g. Tugan-Baranovskim ekonomicheskoi formuly predelnoi poleznosti svobodno proizvodimyykh produktov proporsionalnykh ikh trudovim stoisimostyam* (Analytical Proof of the Economic Formula Submitted by Mr. Tuhán-Baranovsky of Marginal Utility of Freely Produced Goods in Proportion to their Labor Costs), 1902.

Unfortunately, this work of Tuhan-Baranovsky, as far as can be ascertained, did not appear in any Western European language, either in its original or its revised form which appeared later in his *Principles of Political Economy*. But Tuhan-Baranovsky's formulation of a synthesis between the theory of labor value and marginal utility went much farther than reconciliation of the two theories as applied in the solution of the problem of value; it provided an opportunity to construct an entire economic system that solved both the problem of production and of distribution of income.

The newer economic system of R. Liefmann,* is based primarily on this formula.⁶ Liefmann, like Tuhan-Baranovsky, charged the Psychological school with failure to solve the basic problem of value, i.e. what factors regulate, and in what manner, the extent of offering of freely produced goods. Liefmann proposes that profit (*Ertrag*) as a comparison of utility (*Nutzen*) with cost (*Kosten*) is the determining indicator which directs economic activity in the general economy. He argues that costs, in line with economic principles, will be so distributed among the different branches and different directions of economic activity that marginal returns will be equal in all directions.⁷ In Liefmann's understanding of marginal return, it (*Grenzertrag*) is the relationship between marginal utility (*Grenznutzen*) and cost (*Kosten*).⁸

* Robert Liefmann (b. 1874).

⁶ He began to develop it in the book *Ertrag und Einkommen*, Jena, 1907, and in a series of separate articles published subsequently in monthlies; it received its finishing touches in his system *Grundsätze der Volkswirtschaftslehre*. Quotations are from the 2d edition of 1920.

⁷ Liefmann, *Grundsätze*, I, 410 ff.

⁸ Liefmann's thesis can be presented by the following mathematical formula: if utility (*Nutzen*) be designated N, costs (*Kosten*) K, marginal value of which will be designated by subscribers g, then marginal return is $Ng - Kg$, and this relation has to be equal in all

directions, i.e., $\frac{N'g - K'g}{K'g} = \frac{N''g - K''g}{K''g} = \dots$ in margins must equal 0, then it is the same as $\frac{N'g}{K'g} = \frac{N''g}{K''g} = \dots$, i.e., marginal utilities are proportionate to marginal costs.

Liefmann, *Grundsätze*, I, 420 ff.

Thus Liefmann's averment that marginal returns must be equal in all branches if production is rationally distributed in accordance with principles of economics, is the same as the statement made by Tuhan-Baranovsky that, under rational distribution of production, production costs are proportionate to marginal utilities.

True, Liefmann's understanding of costs has a subjective, psychological meaning, while Tuhan-Baranovsky considers production costs to be objective facts, determined by objective technical conditions. In this connection we must recognize that Tuhan-Baranovsky was right to a certain extent. Complete subjectivization and psychologization of costs (*Kosten*), as proposed by Liefmann in his system, deprives it of a certain amount of "life-realism." Without doubt costs can be evaluated the same way as utilities, or taken psychologically, as a feeling of onus, sacrifice, or unwillingness to continue working; this can be particularly applicable to a natural-labor economy, where all costs are reduced to individual labor expenses. But even here one must consider the quantitative objective elements of costs, one must consider that this, or the other, outlay of labor which is felt as a certain loss and taken psychologically, is an outlay depending, to a certain extent, on the stage of technical progress or labor efficiency. This particularly must be taken into consideration in the case of economies for profit (*Erwerbswirtschaft*) as opposed to economies for consumption (*Konsumwirtschaft*), which Liefmann contrasts. Concerning economies for profit, especially those where the entrepreneur's individual labor is unimportant, costs, by Liefmann's own admission, are more of an objective and quantitative nature. They are inevitably determined by technical conditions, which indicate objectively such, and no other, labor outlays, such, and no other, outlays of material goods. Cost of labor and material must also be considered as stated objectively at a given moment, so that the entrepreneur inevitably must regard cost as a certain objectively quantitative expenditure of money. Even utility (*Nutzen*), in an economy for profit, appears in the form of a certain amount of money, as conceded by Liefmann. Thus, expenses or costs come to the entrepreneur of an economy for profit more as objective and externally given quantitative facts, than as psychological feelings. True, the quantities of both costs and profits, when the entrepre-

neur ties them with his economy for consumption, may be, and are felt by him to be, subjective and psychological valuations. But at the base of such psychological valuations of costs lie objective costs, quantitatively stated and dependent upon technical conditions and labor efficiency. This dual nature of economic activity was well recognized and emphasized by Tuhan-Baranovsky and was introduced into the foundation of his attempted harmonious synthesis of the psychological theory of value with theories of objective labor value. On the other hand Liefmann, in his attempt to emphasize a distinction between economics and technology and to deprive economics of the so-called "materialistic content," attributes to economics an unnecessarily one-sided psychological nature, reducing it to psychological calculations and dispositive decisions. Thus, he loses sight of the fact that these calculations and decisions are made on the basis of the very technological and materialistic elements of economic activity, which he would remove from economics altogether.⁹

From the fact that costs, as well as utilities, can be apprehended psychologically, Liefmann concludes that costs are purely subjective valuations, like the desire to satisfy a need. Thus, he tears away the economic process, a process of conducting an economy, and severs its connection with the technically objective process; and in this manner he makes the concept of an economy non-objective, hanging in air. This final severing of economic relationships from a concrete basis and a reduction of the concept of costs to a

⁹ Karl Menger, one of the founders of the Psychological school, whom Liefmann in point of fact also accuses of materialism, has an understanding of the dual nature of economies, too. He says (on p. 60 of the posthumous edition of his *Grundsätze der Volkswirtschaftslehre*) that every real economy has its subjective and objective side. From the subjective view, an economy consists of dispositive activity (activity, and not dispositive decision, *Disponieren*, as expressed by Liefmann, attributing to economy the nature of passive accounting and not of real decisive activity); from the objective view, an economy is a composite of goods and labor (*Arbeitsleistungen*), placed by circumstances of factual conditions, or as a consequence of the legal order, at the command of the dispositive activity of an entrepreneur. According to Karl Menger, neither the subjective, nor the objective side will of itself create an economy, both elements being, in their indivisible union, only two sides of the same phenomenon, which is called the economy. Hence we see that the understanding Tuhan-Baranovsky had of the economic process came close to that which Menger had. It is true that in the final analysis M. I. Tuhan-Baranovsky included only labor costs in objective costs and not outlays of material goods and in this respect he came closer to the socialist trend.

purely subjective and psychological idea is, in our opinion, the weakest spot of Liefmann's system.

However, without considering the fact that Tuhan-Baranovsky and Liefmann differ so widely on the concept of costs, both arrive at the same formula which lies at the basis of distribution of economic production in accordance with principles of economics.

The logic of Liefmann's system lies in the fact that, using his basic formula, he erects an entire economic system of his own, while Tuhan-Baranovsky, as we shall see later, in solving the problem of distribution of the social revenue, starts from other ideas. Undoubtedly, we must recognize that this basic formula of Liefmann, which he builds into the foundation of the whole system and which he extols as the most original idea of the whole system, was offered much earlier and in a stricter and clearer form by Tuhan-Baranovsky. Possibly Liefmann was unaware of it; in any event, he makes no reference to it, although he criticizes some other teachings of Tuhan-Baranovsky, e.g. his social theory of distribution. In this stricture he maintains that Tuhan-Baranovsky arrived at his social theory of distribution because his theory of prices was not correctly developed, and in this respect he places Tuhan-Baranovsky in the same row with other theoreticians. If he had been acquainted with this formula of Tuhan-Baranovsky, he would not have dared make such statement; obviously other reasons induced Tuhan-Baranovsky to construct a separate theory of distribution, independent of the theory of value.

Thus Tuhan-Baranovsky, as early as his first work, solved the problem of value independently, and this solution subsequently became widely accepted by Western European economic science. This solution, with a certain modification, became a part of the system of one of the most talented contemporary economic theoreticians, R. Liefmann. But, I repeat, this part of Tuhan-Baranovsky's teaching was at that time unfortunately inaccessible to European science, because it had not been translated into any of the Western European languages.

The fate of Tuhan-Baranovsky's second important work was different. *Periodicheskiye promyshlennyye krizisy* (*Periodic Industrial Crises*) was first published in 1894. In this fundamental work

Tuhan-Baranovsky emerged as a completely independent theoretician. Admittedly, he leans towards some old schools; for his theoretical method he chose that first used by Quesnay,* in his famous *Tableau Economique*, a method of analysis of the circulation of national capital in the economy of an entire nation, in the national economy as a unit. The schedules of reproduction of national capital worked out by Karl Marx following this same method (the circulation of national capital in the economy taken as a whole), schedules which Marx painstakingly elaborated upon in the second volume of *Das Kapital*, were also used by Tuhan-Baranovsky. However, as Tuhan-Baranovsky remarks, Marx did not utilize them himself in the further development of his scientific system and, among others, did not utilize them for his market theory.

Tuhan-Baranovsky, however, using precisely this method, worked out his own theory of markets. He developed the idea paradoxical at first glance that under the capitalistic economic system production can go on increasing without an increase of direct consumption by virtue of an increase in the production of the means of production (machines, new plants, etc.) and that the extent of the demand for the social product is not determined by consumable income alone. The old theory of the Classical school of Say** and Ricardo, that production always finds demand and that general overproduction is an impossibility, found its strict demonstration in Tuhan-Baranovsky's theory of market, and he supplied the necessary proof, which the Classical school had not been able to establish properly. Thus Tuhan-Baranovsky rejects previous theories of economic crises which, in explaining the causes of crises, concluded that the cause was a general overproduction of goods, the result of an uneven distribution of income and of an inadequate consumption by the broad masses, particularly laborers. This theory was offered by Sismondi,[†] and the socialists and to some extent Marx adhered to it.

Tuhan-Baranovsky also rejects the excessive optimism of the classicists, who maintained that any production found its demand.

* François Quesnay (1694-1774).

** Jean Baptiste Say (1767-1832).

† Jean Charles Leonarde Simonde de Sismondi (1773-1842).

Only that part of the product finds its demand which is based on a proper proportionate distribution of national production, according to him. Meanwhile, contradictions of the capitalist system lead precisely to a continual tendency to disturb this proportionality of distribution of productive forces. The reason is that under a capitalist system production ceases to be a means of satisfying the needs of society and becomes an end in itself for the accumulation of capital: capital exerts a continual pressure on production and, in attempting to increase it, thus creates a tendency to overproduction. This tendency can be prevented only by the appropriate distribution of productive forces, but the unorganized and chaotic capitalist economy makes it very difficult to maintain the essential proportionality of production. Consequently, under the influence of the accumulation of capital, a constant tendency to overproduction is created. The periodicity of crises can be explained, according to Tuhan-Baranovsky, by the inherent tendency in the capitalist system to periodical fluctuations in creating investment capital, which brings about periodic disturbances of proportions between those industries engaged in making the means of production and those producing consumer goods.

Tuhan-Baranovsky's work on periodic industrial crises not only proposed a new explanation of this puzzling phenomenon of economic life, but also indicated new methods of studying the problem of crises by offering much systematic material, which he had collected, on the history of crises in England. Therefore, when this work appeared in the German language in 1901, it drew wide attention. The hitherto relatively meagre literature on the subject of crises began to increase rapidly. A number of prominent theoreticians of crises, like Spiethoff and Pohle,* were much in favor of the theory of Tuhan-Baranovsky. Others were looking for different explanations of the cause, but the road and method indicated by Tuhan-Baranovsky influenced these works, too. The more prominent theoreticians of crises, like the above-mentioned Spiethoff in Germany, or Lescure** in France, held this work of Tuhan-Baranovsky in very high esteem. Spiethoff, who devoted a special

* Arthur August C. Spiethoff, b. 1873; Ludwig Pohle (1869-1926).

** Jean Lescure b. 1882, Professor of Law, Dijon.

article¹⁰ to an appraisal of this work, said that Tuhon-Baranovsky took a great forward step toward creating a theory of crises. Lescure calls Tuhon-Baranovsky's book "the most original and most forceful work of all contemporary economic literature."¹¹

In addition to the German translation of 1901, Tuhon-Baranovsky's book appeared before the war in a French translation. No new work on economic crises can by-pass Tuhon-Baranovsky's theory. No matter what the attitude of a new author to his theory, he must assume some position as to his conclusions. And in point of fact practically every book dedicated to the problem of crises, not only their theory, but also their history, contains references to the work of Tuhon-Baranovsky and its analyses. What is more, not a single general course or textbook of economic theory, if it cites any literature of business cycles at all, can avoid citing the proper references to the work of Tuhon-Baranovsky.

The work of Tuhon-Baranovsky on business cycles has been generally acknowledged as a contribution to world economic science; it has given direction to subsequent scientific research in the appropriate branches and will forever retain its place in the treasury of economic science. (See the addendum on the later American and English references to Tuhon-Baranovsky's book on cycles.)

Four years later in 1898, another major work of Tuhon-Baranovsky, *Russkaya fabrika* (*Russian Factory*), made its appearance. This is probably the finest work of all from the pen of Tuhon-Baranovsky. With his sharp theoretical intellect and strict formulation of thought, Tuhon-Baranovsky approaches the economic history of Russia not only as an historian but even more as a theorist. He not only presents a factual economic history of Russia, but con-

¹⁰ Spiethoff, "Die Krisentheorien von Tugan-Baranovsky u. Pohle," *Jahrbuch fuer Gesetzgebung*, 1903. See also his articles "Krisen" in *Handwoerterbuch der Staatswissenschaften*, IV Aufl.

¹¹ Lescure, *Les Crises Generales et Periodiques de Surproduction*, published by "Bibliotheque D'Economie, Politique et de Sociologie," 2-me ed. Paris, 1910. Lescure further says: ". . . L'Oeuvre de M. Tugan-Baranovsky nous represente la meilleure et la plus suggestive des monographies recentes sur les crises," p. 6.

tributes much to the creation of a theory of capitalist development, both in Russia and in general. He presents the development of the forms of capitalist enterprises during different periods under Russian conditions. His analysis of the development of various forms of home industry in Russia and his emphasis on its capitalist nature are of particular interest. In that respect his views are contrary to those held by the populists, who perceived in home industry a peculiarity of Russian economic development. All this places Tuhán-Baranovsky's work in close relation to the theoretical and historical works of Western European science. During this period the entire economic science of Western Europe, Germany in particular, was deeply engrossed in the problems of development and forms of home industry. "Verein für Sozialpolitik" prepared special inquiries into this matter, and the ablest theoreticians and economic historians like Schmoller, Sombart, Buecher, Alfred Weber and Liefmann devoted their works to this problem.* Thus Tuhán-Baranovsky's *Russkaya fabrika* is in step with the general Western European ideas of the time. The same is true of the polemic which Tuhán-Baranovsky undertook in this work against representatives of populist thought on the subject of artificiality v. naturalness in the development of Russian capitalism. This again was not an exclusively Russian problem, such problems arose in European science. For example, the eminent French economist Mantoux,** in his work on the industrial revolution in England, proposes an idea analogous to that of the Russian populists on the artificiality of the development of capitalism in France in contrast to its natural development in England.

Some English economic historians like Cunningham[†] attempted to prove that even in England the first large enterprises were "artificially planted" with the aid of the state. Thus, the role of the state in the development of large-scale capitalist production, of

* Gustave Friedrich v. Schmoller (1838-1917); Werner Sombart (1863-1941); Karl Buecher (1847-1930); Alfred Weber (b. 1868).

** Paul Joseph Mantoux, (b. 1877).

† William Cunningham (1849-1919).

which Tuhan-Baranovsky took note in the economic history of Russia, was noted by economists in other countries. Sombart in his great work on the origin of modern capitalism illustrated with examples from the work of Tuhan-Baranovsky his theory of the role of the state in the genesis of modern capitalism. Sombart rates this work of Tuhan-Baranovsky as excellent (*vortrefflich*). *Russkaya fabrika* was translated into German shortly after its publication in 1901 and, according to Sombart, it was the only source on the early development of Russian capitalism for those who did not know Russian.

Thus this work, on first glance concerned with the special problems of the economic history of Russia, provided Western European economic science an acquaintance not only with the facts of Russian economic development, but also with material and directives for the theory of capitalist development. In any event, Sombart, one of the most talented Western European economic historians with theoretical interests, bases all his deliberations on Russian capitalist development, as well as all illustrations through Russian examples of his theory of the development of capitalism, on Tuhan-Baranovsky's book.

In his later works, and in particular in his work on the social theory of distribution, published in German in 1913 and in Russian in 1914, Tuhan-Baranovsky came again into close contact with Western European economic thought. Tuhan-Baranovsky, dissatisfied with the theories explaining the origin of the different categories of income given by representatives of the Psychological school and with the substantiation of the distribution of social income given by Karl Marx, proposed his own theory, which he designated as the "social theory of distribution." The basic idea of Tuhan-Baranovsky was that there must be a separate theory of distribution, in addition to the theories of production and exchange of goods, and that problems of distribution are problems *sui generis*, entirely different from the problem of value. Whereas the category of value is a logical category, intrinsic to all economies of all social environments, the category of income, as far as unearned incomes are concerned, is an historical category in the sense of being closely tied with a particular given historical economic system and with

specific social conditions where the means of production belong to one class and where the workers are deprived of such means.¹²

In emphasizing this historical nature of unearned incomes, Tuhan-Baranovsky certainly comes quite close to Marx' theory of exploitation, although he does not accept its foundation; Marx links the theory of unearned incomes with his labor theory of value. In rejecting Marx' theory of value, Tuhan-Baranovsky had to furnish his own explanation of the theory of exploitation. He does so, stressing the role of the social factor in economic life. This introduction of the social, or, one might say, sociological element into economic theory puts Tuhan-Baranovsky in close affinity with a whole large group of economists of Western Europe, particularly of Germany. This group includes first of all Stolzmann,* who published the book *Die Sociale Kategorie in der Volkswirtschaftslehre* in 1896; also the well-known Professor Diehl of Freiburg University, an authority in German science; Ammon of the German University of Prague; Zwiedineck-Suedenhorst; Spann of Vienna; and others.** The position of Tuhan-Baranovsky among them is, however, distinct and independent. Tuhan-Baranovsky admits that he differs with Stolzmann in that the latter wishes to tie together the problem of value and the problem of distribution. However, his

¹² This author does not share the view of Tuhan-Baranovsky that there is such a basic difference between problems of value and creation of incomes. If the category of income, especially of unearned income, is an historical category, then the category of value, especially in its realistic manifestations of the category of price, also contains certain historical elements: social factors have an influence on determination of prices, as for example the institution of property, monopolies of certain goods, in the same manner as upon the determination of incomes. This author believes that taking the theory of value of Tuhan-Baranovsky in its synthesis with the theory of cost, there may be a possibility of developing a theory of the distribution of incomes, without resorting for this purpose to the establishment of a separate social theory of distribution. Even in the process of determining prices social relationships of people play an important part. The fact that a homemaker or cottage artisan sells his products at a cheap price, and, upon reselling them, the merchant-capitalist makes an unearned profit, does not differ in principle from the fact that the industrialist-capitalist makes an unearned profit from the difference between the selling price of the finished product and his outlays, including wages. In the first instance the homemaker gets his income in the form of the price of the goods; in the second there is a distribution of income between the worker and the capitalist-entrepreneur. Thus I see no basic difference between the determination of price and the determination of income. They are merely two sides of one process.

* Rudolf Stolzmann (1852-1930).

** Karl Diehl (b. 1864); Alfred Ammon (b. 1883); Otto v. Zwiedineck-Suedenhorst (b. 1871); Othmar Spann (b. 1878).

approach is the opposite of the preceding economists who also wanted to unite the two problems; i.e. he wishes to reduce the problem of value to the problem of distribution, and not vice versa. Stolzmann considers the price of goods to be nothing else than the disclosure of the relationships of distribution of the social product among the various social classes.¹³

Tuhan-Baranovsky, on the other hand, puts intense emphasis on the difference between the problem of price and the problem of distribution. In this respect he is closer to Eugen Duehring,* who was probably the first to sharply oppose the category of production as the logical, to the category of distribution as the historical, in economic science.¹⁴

In this respect there is also an affinity between Tuhan-Baranovsky and the well-known contemporary German economist Oppenheimer,** who similarly places these categories on opposite sides in his theory of pure and political economics. It is noteworthy that when Liefmann, whose attitude was decidedly against the introduction of the social element, or, as he says, of sociology into the science of economics, undertook to criticize this trend, he chose to criticize none other than the work of Tuhan-Baranovsky. In his opinion, no other work of this trend contained thoughts formulated in such a sharp and interesting manner (*scharfsinnig*) as Tuhan-Baranovsky's, and for this he gives due credit to Tuhan-Baranovsky.¹⁵

Tuhan-Baranovsky's work on the theory of social distribution drew the attention of Western European economic science immediately upon its appearance in German. Albrecht's† article on Tuhan-Baranovsky's theory appeared in 1914.¹⁶ Liefmann also de-

¹³ Tuhan-Baranovsky, *Osnovy* . . . , 3rd ed., p. 414.

* Eugen Karl Duehring (1833-1921).

¹⁴ Duehring, *Kursus der National and Socialoekonomik* (*Course of National and Social Economics*), 1st ed., 1873.

** Franz Oppenheimer (b. 1864).

¹⁵ Liefmann, *Grundsätze*, I, 153 ff.; II, 592 ff.

† Gerhard Albrecht (b. 1889).

¹⁶ Albrecht, "Zur Socialen Theorie der Vertheilung" (On the Social Theory of Distribution), *Jahrbücher für Nationaloekonomie*, 1914, Bd. 47.

voted a whole chapter to criticism of Tuhan-Baranovsky's theory in the second volume of his *Grundsätze* (pages 588 to 600). This work of Tuhan-Baranovsky was also not without influence upon the development of ideas in Western European economic science. Some greeted it very favorably, since his theory provided a basis for further theoretical construction; others sharply criticized it, however conceding at the same time the forcefulness of their opponent's theoretical thought.

Tuhan-Baranovsky's work *Teoreticheskiya osnovaniya Marksizma* (*Theoretical Foundations of Marxism*), published in 1905,* occasioned an exchange of ideas in socialist circles: authoritative theoreticians of socialism conceded that it was a precise and clear formulation of the basic ideas of Marxism and that it exerted an influence upon thought in this area.

Later works of Tuhan-Baranovsky, such as *Sotsialni osnovy kooperatsiyi* (*Social Foundations of the Cooperative Movement*), and the work dedicated to the theory of money *Bumazhnyie dengi i metall* (*Paper Money and Metal*), were written during the war, when contacts and relations between countries had been disrupted, each land leading its own life, and when there was an interruption of the exchange not only of material goods, but also of scientific ideas. For these reasons, as far as I know, these two important works of Tuhan-Baranovsky were not published in any European language.

Therefore, these works did not affect Western European economic thought. These works, especially the important work on social foundations of the cooperative movement, had they been accessible (linguistically) to European scientists, would not have remained without influence upon the development of theoretical economic thought in the two branches of economic theory in which Tuhan-Baranovsky was active during the last years of his life.

I would like to point out one more aspect of the complex of trends of economic ideas of Tuhan-Baranovsky which, to a certain extent, influenced not only theoretical ideas in Western European economic science, but to some extent applied economics and empirical research. I have already emphasized the great influence

* Also translated into German.

Tuhan-Baranovsky's first major work on industrial crises exerted upon the subsequent development of the study of economic cycles. Tuhan-Baranovsky frequently pointed out that there was in his theory of crises not only a theoretical, but also an empirical meaning; this theory contains methods for following the development of economic cycles, and the opportunity, after examining the symptoms, to forecast to a certain degree the proximity of booms and approaching depressions. In some instances he was himself able to foresee the approach of economic crises.

On the basis of Tuhan-Baranovsky's theory of crises, the German economist Bresiger attempted to determine accurately and to formulate the symptoms of approaching depressions.¹⁷ In some European countries, even before the war, special institutions were established for the investigation of economic cycles and forecasting of industrial crises (e.g., in France, a permanent committee to forecast industrial crises was established in 1912). These undertakings were continued after the war and have spread to many lands: for example, Harvard University established a special research department in 1917 — the Committee on Economic Research — to investigate business cycles and it succeeded in making this project a very important matter.¹⁸ It was reported that the department predicted the depression at the end of 1920 some months in advance. The London School of Economics established a bureau on the Harvard pattern and publishes a "barometer of business conditions."

All these practical undertakings, which will possibly have considerable practical significance in the future, came about not without a certain amount of influence from the ideas of Tuhan-Baranovsky. When Tuhan-Baranovsky became head of the Social Science Department of the Ukrainian Academy of Sciences, he immediately started organizing an "Institute for the Study of Economic Cycles" attached to the Academy; he intended to place the work of this Institute in close contact with similar institutions all over the world, to exchange data and material with them, and thus

¹⁷ Bresiger, *Die Vorboten einer Wirtschaftskrise in Deutschland*, 1913.

¹⁸ Basic methods for investigating cycles for the Committee on Economic Research were developed by Warren M. Persons in his *Studies of General Business Conditions*, Cambridge, Mass., 1919.

contribute to a collective work of studying and predicting the world economic situation.

This author had the great honor to be invited by Tuhan-Baranovsky to take charge of this Institute. Unfortunately, the same conditions which contributed to M. I. Tuhan-Baranovsky's untimely death, also prevented the further development of the scientific Institute that he had planned.

We, Ukrainian economists and disciples of M. I. Tuhan-Baranovsky, have a duty to continue this work which he laid out for us in the last days of his life, so that we might, to a small degree, commensurate with the as yet quite limited forces of Ukrainian economic science, uphold the very lively contacts with Western European economic science which the late Tuhan-Baranovsky had established thanks to the great power of his theoretical ideas and his untiring work in the field of economic science.

September 22, 1924.

Prague.



ADDENDUM

My paper prepared on the occasion of the 5th Anniversary of the death of M. I. Tuhan-Baranovsky has been left practically without change. I wish to add that his early death did not prevent the further spread of his ideas. It might even be said that his influence on economic thought has increased during the thirty years since the paper was written. Certainly his name and his theories, particularly his theory of the business cycle, have become better known in America and generally in the Anglo-Saxon world, whereas earlier he was well known only on the continent of Europe.

His book on business cycles, although based mainly on historical data concerning English cycles, has never been translated into English. This might have limited the influence of Tuhan-Baranovsky's ideas on English economists, except as they became acquainted with his theory in the German and French translations of his book. Actually, it was the deep interest and intensive study of business cycles in America that made the Tuhan-Baranovsky theory of business cycles accessible to a wide circle of Anglo-Saxon economists.

When the late Professor Wesley C. Mitchell published the first volume of his important book, *Business Cycles: The Problem and its Setting* in 1927, he found it necessary to give much attention and place to Tuhan-Baranovsky's theories, perhaps more than to the theories of any other authority in the field. He stressed the importance of his historical study of English crises in the nineteenth century (pp. 10, 57, 361); he included Tuhan-Baranovsky's theory of business cycles in his presentation and classification of current theories of cycles (pp. 23-25, 52). He found it necessary also to clarify the influence of Tuhan-Baranovsky upon other business cycle theories (pp. 26-27). Generally speaking, he made Tuhan-Baranovsky's theory of the business cycle fully accessible to those Anglo-Saxon economists who could not or did not care to read them in languages other than English.

From this source Keynes also became closely acquainted with the Tuhan-Baranovsky theory of the business cycle, as demonstrated clearly by his quotations in *A Treatise on Money*, (Vol. II, pp. 100-101).

Keynes not only mentions Tuhan-Baranovsky's theory, but he says . . . "I find myself in strong sympathy with the school of writers — Tugan-Baranovski, Hall, Spiethoff and Schumpeter — of which Tugan-Baranovski was the first and the most original, and especially with the form which the theory takes in the words of Tugan-Baranovski himself. . . ."

It appears, thus, that even Keynes, the economist responsible for a modern revolution in economic theory and the one who initiated "The New Economics" did not escape the influence of Tuhan-Baranovsky.

Finally, Professor Alvin H. Hansen of Harvard University, in his recently published textbook, *Business Cycles and National Economy*, which will long serve as an authoritative text on business cycles for the new generation of economists in this country, presents Tuhan-Baranovsky, together with the Swedish professor, Knut Wicksell, as a founder of modern business-cycle theory (pp. 226-27). He put him at the head of the group of theorists emphasizing the role of investment in generating business cycles and supplies a detailed summary of his theory of economic crises (pp. 278-81), the complete translation of which is presented in this issue of the *Annals*. In addition, he refers to Tuhan-Baranovsky's theory many times in connection with theories of other leading economists, in an attempt to clarify its influence on these economists, as well as in his summary statement of modern cycle theory (pp. 489-98).

All this shows that Tuhon-Baranovsky's ideas continue to be alive 35 years after his death. And in conclusion it must be repeated that no one economist of Slavic origin had greater influence on the development of world economic thought than he.

April 25, 1954.

THE STRUGGLE FOR SHEVCHENKO*

Shevchenko in Soviet Interpretation

P. ODARCHENKO

“... the Greedy One will never plough
The earth that lies beneath the sea
So neither will he put in chains
The living soul, the living word!”

Taras Shevchenko

Soviet rule was brought to the Ukraine early in 1918 “on the tips of Russian bayonets” by the former Colonel of the Russian Gendarmerie, Muraviev. The Russian Bolsheviks, as related by V. Vynnychenko, tore down portraits of Shevchenko from the walls and trampled upon them. They hunted down Ukrainian school-teachers in the villages, tortured and shot them for only being patriotic Ukrainians. But the Bolsheviks soon recognized their great political mistake, and during their third occupation of the Ukraine in 1920 they were compelled to take into consideration the national feelings of the Ukrainian people. The Russian Bolsheviks recognized the remarkable importance of Shevchenko in the Ukraine, the absolutely unsurpassed reverence for the genius of the poet, his influence and wide popularity among the broadest masses of the Ukrainian people. The Bolsheviks attempted to utilize the great power of Shevchenko’s words for their own propaganda aims; Shevchenko was declared a prophet of the socialist revolution. In 1920 the Council of Commissars of the Ukraine even promulgated a law, which declared Shevchenko Day of March 11th to be “forever a day free from work.” The decree was signed by Kh. Rakovs’ky, effective for one year only. It was repealed the following year, and in 1921 work was done not only on Shevchenko Day, but also on the following Sunday which was declared “Sunday in memory of Shevchenko,” and there was no reimbursement for working on this day.¹

* From a paper read at the Shevchenko Conference of the Ukrainian Academy of Arts and Sciences and the Shevchenko Scientific Society in New York on March 14, 1954.

¹ T. H. *Shevchenko v dokumentakh i materiyalakh*, Kiev, 1950, p. 386.

The period of the "New Economic Policy" (NEP) from 1922 to 1928 was most favorable to the development of scientific research on Shevchenko. The main accomplishments of this period were: a scholarly edition of volumes III and IV of the works of Shevchenko with very valuable articles and commentaries, which of themselves constitute an entire encyclopedia of Shevchenko studies; scientific dissertations and works dedicated to Shevchenko's biography, different aspects of his creativeness, his poetics, language, and literary environment. These works were published in the periodicals of the All-Ukrainian Academy of Sciences, *Ukrayina, Zapsky istorychno-filolohichnoho viddilu* (*Notes of the Historical-Philological Department*), and in special Shevchenko collections. Scientific research was centered in the Academy of Sciences and the Institute of Taras Shevchenko. The following prominent scholars worked on various problems of the study of Shevchenko: S. O. Yefremiv, M. M. Novyts'ky, O. K. Doroshkevych, D. I. Bahaliy, O. Novyts'ky, M. Plevako, P. P. Fylypovych, M. K. Zerov, V. V. Miyakovsky, O. Bahriy, I. Eisenshtok, A. A. Shamray, B. V. Yakubs'ky, B. Navrots'ky, V. P. Petrov, O. Hermayze, P. Rulin, S. Rodzevych, M. Markovs'ky, P. Tykhovs'ky, V. M. Derzhavyn, L. Koshova, O. Synyavs'ky, M. Sulyma, A. D. Lebid', S. Taranushenko, M. Mochuls'ky, H. Khotkevych, A. M. Loboda, V. I. Ryzanov, Ye. A. Rykhlik, M. Mandryka, M. Mohylyans'ky, Ye. Nenadkevych, Borys Warneke, T. Sikyrins'ky, H. Mayfet, A. Lyashchenko, and many others.

The representatives of the official, or so-called "Marxist," trend of studies were, during this period, V. Koryak and A. Richyts'ky. Koryak published a series of newspaper articles, which were published in book form in 1925 (115 pp.) as *The Struggle for Shevchenko* (*Borot'ba za Shevchenka*). Koryak opposed the scientific studies of Shevchenko and, in their place, proclaimed "the class study of Shevchenko." Koryak's formulation of "the class study of Shevchenko" was to make the poet appear as: "the prophet of the proletariat," "the prophet of the social revolution," "the poet of the peasants," or "the poet of the hoboos." All this was in reality a vulgarization of Shevchenko and a depreciation of his works and ideas. Richyts'ky, in his book *Shevchenko in the Light of the*

Epoch (*Shevchenko v svitli epokhy*, 1923), simplifies and schematizes the "living" Shevchenko, treating him as the pre-proletarian poet. This concept remained the officially accepted Soviet "Shevchenkiana" for quite a long time.

A representative of the Communist Party Central Committee came to the Ukraine from Moscow in 1929 to check on the proper execution of the nationalities policy. This inspector opposed the decision of the Ukrainian Peoples Commissariat of Education to make a national park of Shevchenko's burial place and the popularization of Shevchenko's works. He was furious when he heard that 120,000 copies of Shevchenko's *Kobzar'* had been distributed in Ukraine in 1928. M. Skrypnyk retorted ironically to the Moscow inspector: "What a crime!" And when the inspector, continuing his speech, grew indignant that the Commissariat of Education was planning to publish another 200,000 copies of *Kobzar'* in 1929, Skrypnyk again replied: "An even greater crime." The inspector continued: "Shevchenko, that spokesman of the bourgeois renaissance, has been turned into an ideologist of the socialist renaissance," and the Moscow inspector's voice rose to a shout "You are publishing his works in tremendous numbers not only without any abridgement, but even without any appropriate explanation. . ." Now Chubar could not contain himself and retorted: "The tsar always published an abridged *Kobzar'*!" In relating this incident, M. Skrypnyk wrote: "I do not think we need go any further. We have here a man who, like a conqueror, traveled a month and a half over the Ukraine, sniffed some Ukrainian culture, and even saw or heard something about Shevchenko."²

This conqueror had not come for nothing! Mass arrests of Ukrainian intelligentsia and peasants started in 1929 in connection with the trial of the members of *Spilka Vyzvolennya Ukrayiny* (Society for the Liberation of Ukraine). Scientific studies of Shevchenko were dispensed with and the main cadres destroyed. The Institute of Shevchenko remained intact for a short time. A rabid campaign against the so-called "Yefremov movement" was instituted under the terroristic pressure of a cruel party dictatorship. In 1931 they began to bait O. K. Doroshkevych who was

² Skrypnyk, M., *Statti i promovy*, No. 2, Kharkiv, 1931, II, 232-233.

in charge of the Kiev branch of the Institute of Shevchenko. A. Richyts'ky was the official authority on Shevchenko and on studies of Shevchenko until 1933. Richyts'ky saw in the works of Shevchenko "a quite obvious bourgeois-democratic concept of the nation's problems. . . Shevchenko poses the problem of a united national front and the revolutionary struggle of the bourgeoisie for a national state. . . Shevchenko's picture of Washington expresses his program of a revolutionary war for the independence of the Ukraine and for a republic." The younger students of Shevchenko used rivers of ink in their effort to find a "class equivalent" in Shevchenko's heritage.

The famine of 1933, increased persecution of the Ukrainian people, the suicides of Skrypnyk and Khvylovy, the execution of Richyts'ky, and the mass arrests of Ukrainians in and beyond the Ukraine, mark the new stage of the crusade against Ukrainian culture. After 1933 the literary heritage of the great poet came under Party control. A Party concept of Shevchenko was established, binding on everybody. The "Division of Culture and Propaganda of Leninism of the Central Party Committee" (CP/b/U) published its theses in 1934 declaring Shevchenko to be "a bourgeois democrat" and an ideologist of petit-bourgeois peasantry with nationalist and religious remnants. Zatons'ky and Khvylya became Party authorities in matters of culture, and Ye. Shablov's'ky, in the studies of Shevchenko.

Three books by Shablov's'ky appeared in the period 1933-1935: *Shevchenko ta yoho istorychne znachennya* (*Shevchenko and His Historical Significance*), 280 pp., 1933; *Shevchenko, yoho zhyttya ta tvorchist'* (*Shevchenko, His Life and Works*), 268 pp., 1934; and *Shevchenko i rosiys'ka revolyutsiyna demokratiya* (*Shevchenko and Russian Revolutionary Democracy*), 148 pp., 1935. These publicistic works of Shablov's'ky are all of an identical composition; at the beginning and at the end of each book the author inserts long and numerous quotations from the works of Lenin and Stalin, and sings the praises of the accomplishments of the Bolshevik government. At the same time the author vituperated against "bourgeois Ukrainian nationalists." But in the body of the book, where he analyses the works of Shevchenko, Shablov's'ky vents all

his anger at Russian imperialism. Some quotations will illustrate this: "Millions of people are crushed under the paw of the Russian despot . . . Shevchenko shows the real, rapacious Russia, with her ideological prostitution and unprincipled knavery . . . Shevchenko, in uncontrollable anger shows how, in the name of 'the one mother Russia' . . . thousands and tens of thousands of people are driven, their arms and heads are torn off, they are buried alive, or tortured hideously to death. With jails, chains, whips, and slavery, thus marches the robber policy of the gendarme-state of Russia, against nations as yet untouched by Tsarist 'civilization.' The Russian beast of prey has changed into a tombstone, crushing all shoots of young and creative life. State laws are a torture for the oppressed; state laws are a shameless molestation of fettered slaves. The whole state is a place of torture of peoples. . . Shevchenko's Ukraine is a poor widow, put in chains, thrown on the ground, shivering, with torn hair, no clothes, bent on the hillside. . . Those are the hungry widows, the unsheltered orphans, slaves in handcuffs, tortured serfs, children swollen from hunger . . . they are like living witnesses of the order of oppression. . . ."⁸

This was written and published in 1933, at a time when millions of Ukrainian peasants, swollen from hunger, were indeed "living witnesses of the order of oppression." In a new edition of this book in 1934, the words "children swollen from hunger, like living witnesses of the order of oppression" were deleted by the censor. Further on we read such lines: "In his works Shevchenko educated the masses in the spirit of recognizing the right of Ukraine to be an *independent state*." Even in his last book *Shevchenko i rosiys'ka revolyutsiyna demokratsiya*, Shablovs'ky picks out those quotations from Herzen and Chernyshevsky that are directed against the idea of a "one and indivisible Russia" and even against federation with Russia, and those that emphasize the need for the establishment of an independent Ukrainian State, not subordinated to Russia. ("Ukraine should be recognized as a free and independent land," Herzen. "To deny independence to a nation for the only reason that it seems to be expedient for military power and political influence upon other lands, is bad," Chernyshevsky).

⁸ Shablovs'ky, Ye.S. *Shevchenko ta yoho istorychne znachennya*, Kharkiv, 1933, pp. 224-226.

Comments of a similar nature were included in Shevchenko's *Kobzar'*, which came out in 1934 edited by Khvylya and Shablov's'ky. The latter was shot as a Ukrainian nationalist in 1935.

The years of the regime of Yezhov (1936-1938) are dead years even for Shevchenkiana in journalism.

The next stage in Soviet studies of Shevchenko comprehend the years immediately before the war, i.e. 1938-1941. The official Soviet concept of Shevchenko changed completely during this period. The top echelon of Soviet rulers in the Ukraine was deposed. Among those liquidated were: Kosior, Zatons'ky, and even Postyshev, who was blamed for allowing "the Ukrainian nationalists to isolate him from the land with a smokescreen of compliments and kowtowing." The new deputy for Ukraine was Nikita Khrushchev. There was an increased Russification. The Bolsheviks mentioned no more that "Russian great-power chauvinism represents the greatest danger within the boundaries of the USSR." Russian great-power chauvinism won a victory, and from the "greatest danger" it changed into "the general Party line." Old Marxist socialist slogans were filed away in the archives. A new ideology of "Soviet patriotism" was born, tantamount to Russian nationalism. History was being made according to the new recipe, the Russian Tsars and their predatory imperialist policy were vindicated, and the cruelties of Ivan the Terrible and Peter the Great excused. New political tasks, especially the preparation for war and the capture of Poland, and new ideological precepts of the Bolshevik Party conditioned the new interpretation of Shevchenko.

The Party's central organ *Pravda*, in an editorial on Shevchenko, laid down inflexible rules on the manner in which the works of Shevchenko were to be treated. The basic directive of Moscow was to disarm Shevchenko; not only to disarm him, but more, to turn him into a weapon for the propaganda of the then fashionable "Soviet patriotism." *Pravda* emphasized particularly the imaginary connections of Shevchenko with Russian literature and Russian Revolutionary Democrats. *Pravda's* Party directives were repeated many times in books and articles. Nevertheless during this period Ukrainian scholars succeeded in publishing a complete scholarly edition of the works of Shevchenko in 5 volumes, al-

though with slanted *annotations*. In the flood of tendentious, propaganda literature, there would be occasional works that went beyond the limits of Party directives. (Such were the works of Ryl's'ky, Rosenberg, Bilets'ky, Shakhovs'ky, Levchenko, S. Savchenko.) Byelchikov undertook the deliberate alteration and falsification of Shevchenko. Whereas in his poem "Son" (The Dream), Shevchenko called Tsar Peter I "the hangman of the Ukraine" and "cannibal," Byelchikov ignored this fact and wrote: "Shevchenko understood the progressive activity of Peter I."⁴

An article by Berger is full of lies and insinuations against Shevchenko; views and convictions, against which Shevchenko had struggled all his life, are ascribed to him. Berger wrote that the anti-Muscovite works of Shevchenko, e.g., "Rozryta mohyla," "Chyhyryn," "Velykyi l'okh," and "Subotiv," were all directed against the Polish nobility.⁵

In the studies of Shevchenko, a position of special merit belongs to the valuable work of M. Shaginyan, which came out in two editions (1941 and 1946).⁶ Contrary to official Soviet interpretation, Marietta Shaginyan supports the originality of Shevchenko's poetry and its freedom from Russian influences. She proves that it was not the influence of Chernyshevsky upon Shevchenko, but, vice versa, the influence of Shevchenko upon Chernyshevsky. The work of Shaginyan also contains valuable research on problems of Shevchenko's biography and on his poetics.

The war years and the initial post-war period constitute a separate stage in the studies of Shevchenko. Having lost the Ukraine, the Bolsheviks made an about-face in their nationality policy and began to call the Ukrainian nation "great"; they nurtured the national patriotism of the Ukrainians, emphasized Shevchenko's love of the Ukraine, and utilized his poetry in the struggle against the Germans. Tychyna gave priority to Shevchenko's patriotism in his poetic works and to his praise of the glorious ancestors of the

⁴ Byelchikov, N. F., *Taras Shevchenko, kritiko-biograficheski ocherk*, Moscow, 1939, p. 110.

⁵ Berger, M. N., "Shevchenko-Istoriya," *Naukovy zbirnyk Odes'koho Derzhavnogo Universytetu, Pamyati Shevchenka*, 1939, pp. 171-198.

⁶ Shaginyan, Marietta, *Taras Shevchenko*, Moscow, GIZ, 1941; *Taras Shevchenko*, Moscow, 1946.

Ukrainian people. Bulakhovs'ky wrote a dissertation on the language and style of Shevchenko, proving that Shevchenko was "one of the world's most original poets"; O. Bilets'ky declared that "There is no analogy between Shevchenko and foreign poets," and that "Shevchenko and Franko are the two summits of modern Ukrainian literature, which, since their time, has followed the course of *European* development." The scholars O. Doroshkevych and A. Shamray were restored to grace, and they wrote and published valuable articles on the life and works of Shevchenko. Ryls'ky and Bulakhovs'ky published works on Shevchenko's language and poetics in the scientific publications of the Academy of Sciences.

Academician O. Bilets'ky was able, during this time, to make the following significant statement about the international importance of Ukrainian literature: "Conditions which made Ukrainian literature the only refuge and the only spokesman of the national community thought, were obviously bound to make the national meaning of literature more acute. . . . If Russian literature has gained world importance on the strength of its ideas of liberation, then inevitably the literatures of other Slavic people — Ukrainian and Byelorussian — are related to Russian literature and should have assumed, to a greater or lesser extent, the same characteristics and, therefore, share in some measure the position which Russian literature occupies in the world."⁷

Moscow was close on the heels of this reborn Ukrainian scientific study of Shevchenko and halted the fertile and profitable work of Ukrainian scholars with one fell swoop. The deep significance of Stalin's weighty words to the high command of the Red Army in 1945, became meaningful only in 1946. Stalin called the Russian people "the nation that had suffered most," and "the leading force of the Soviet Union." Zhdanov's lecture on the Russian magazines *Zvezda* and *Leningrad* castigated these periodicals for their lack of Russian nationalism and for allegedly "bowing before the rotten bourgeois West." Ten days after this statement of Zhdanov, the Central Committee of the CP(b)U struck Ukrainian liter-

⁷ Bilets'ky, O. I., "Mizhnarodnye znachennya ukrayins'koyi literatury," *Literaturna hazeta*, March 28, 1946, Kiev.

ature and Ukrainian literary scholars,⁸ accusing them of bourgeois nationalism and of having committed a whole series of political mistakes. They were accused of having failed to show "the great and beneficial influence of Russian literature and culture on the development of Ukrainian literature," and of "exaggerating the influence of Western European literature." The Party procurator in matters of literature, I. Stebun, mercilessly censured the authors of the textbook on the history of Ukrainian literature (1945) and pointed out the manner in which history of Ukrainian literature was to be written.⁹ His basic theses were: Ukrainian literature not only remained at all times under the "mighty influence of the advanced literature of the Great Russian people," but even the appearance of Ukrainian literature was the result of the "aid" of the Russians. Stebun attacked Kyryluk most vehemently for the latter's violation of the principle of the well-known "Russian primacy," and for daring to write in the Academy's *Narys istoriyi ukrayins'koyi literatury* that Shevchenko was a more stalwart revolutionary than Belinsky. This statement of Kyryluk, which is based on facts, Stebun called "a tendentious and nationalistic twisting of true facts." Later, in 1949, during the anti-Semitic campaign Stebun-Katsnel'son was liquidated for "bowing before the bourgeois West,"¹⁰ and for a "malicious intent to belittle the great wealth of Ukrainian classical literature."

Not only did the new works on Shevchenko (Kyryluk, Dmyterko, Kovalenko, and others) have nothing in common with real studies on Shevchenko, but they had nothing in common with the preceding journalistic "Shevchenkiana" of Soviet newspapers. These elaborations were produced in the terror and the fear of inevitable accusation of "Ukrainian bourgeois nationalism" and these works contained an endless repetition of stock phrases:

⁸ "Pro perekruchennya i pomylky u vysvitleni istoriyi ukrayins'koyi literatury," *Narys istoriyi ukrayins'koyi literatury*, 1945. The following decisions of Central Committee of the Communist Party of the Ukraine of August 24, 1946, in *Radyans'ke literaturoznaustvo*, Kn. 7-8, 1947, pp. 3-5.

⁹ Stebun, Illya, *Proty vorozhykh teoriy v ukrayins'komu literaturoznaustvi*, Kiev, pp. 7-34.

¹⁰ "Do kontsa razgromit kosmopolitov-antipatriotov," *Sovetskaya Ukraina, Literaturno-khudozhestvennyy almanakh*, I, 1949, pp. 3-13.

"Shevchenko rose to the intellectual summit of his epoch only because he was aided by foremost leaders of the Russian nation." "Shevchenko fought for the unification with the Russian nation." "First, and earliest of all, Shevchenko fought to unite with the Great Russian people."¹¹ Contrary to known facts, Dmyterko treated Shevchenko as being in favor of Khmelnytsky's Treaty of Pereyaslav with Moscow. The methodology of these articles consists of ruthless falsification and endless repetition of hackneyed and monotonous phrases. Falsification of Shevchenko reached complete absurdity.

Shevchenko's work are themselves the best source for correcting these falsifications. In the poem "Velyky l'okh" (The Great Pit) and in other poetical works Shevchenko is decidedly against Khmelnytsky and the Pereyaslav Treaty with Moscow as well as against uniting the Ukraine with the Muscovite Tsardom. On the violation of the Treaty of Pereyaslav by faithless Moscow, Shevchenko writes in his poem "Subotiv": "The Muscovites grabbed whatever they saw." The occupiers took the rich lands of the Ukraine: "Catherine's bastards swarmed like locusts." Shevchenko acidly ridiculed the Russian great-power chauvinistic concept of the so-called *vozz'yednannya*, the unification of the Ukraine and Muscovy:

"You see, they say all this
Was once our very own,
That they had only hired
Our land for Tatars' fodder
And the Poles. . ."

Shevchenko expressed his unshaken belief that there will be an end to Moscow's rule, and that from the ruins of this jail of nations:

"Ukraine will rise
And scatter slavery's mist,
The world of Truth will shine
And then in freedom
Children of slaves will pray."

¹¹ Dmyterko, Ya. D., *Obshchestvenno-politicheskiye i filosofskiy vzglyady T. G. Shevchenka*, Izd. moskovskovo universiteta, Moscow, 1951, p. 50.

All anti-Russian works of Shevchenko are at present excluded from the collections of his poetry. *Kobzar'* was published again in 1950, but notice was not given that it contained only "selected works." Its external appearance makes one believe that it is a complete collection of Shevchenko's poems. But upon careful examination of this edition, we see that the poems "Velyky l'okh," "Rozryta mohyla," "Subotiv," "Irzhavets'," and many others that were anti-Moscow, are missing. The folly of this contemporary Russian-nationalistic concept of Shevchenko has even been made a subject of disclosure in a Soviet book *T. H. Shevchenko v dokumentakh i materialakh* (*T. H. Shevchenko in Documents and Materials*, 1950). The third part of this book contains an editorial from the newspaper *Komunist* of 1939 and an editorial from *Radians'ka Ukrayina* of 1949. The two editorials, when collated, reveal the very obvious falsification of Shevchenko. The first article states: "Shevchenko had a boundless love for his native land, for his own Ukraine . . . he dearly loved his people with their heroic past and with their great and glorious future. The best traits of the nation found embodiment in the person of Taras Shevchenko: love of freedom, hatred of servitude, flaming love for the fatherland, and a wish to make life beautiful, . . . the people happy, the land flowering. . . This manly call of the poet-revolutionary went out to all nations enslaved by the nobles and oppressed by the autocratic rule of the Tsarist henchmen. . . The prominent leaders of Russian revolutionary democracy, Chernyshevsky and Dobrolyubov, *paid attention* to his voice. Filled with hatred of the oppressors and love for the oppressed, the inspired poetry of Shevchenko was near and dear to all subjected nations of autocratic Russia."

We find something entirely different in the article of 1949: "Great and burning was the love of Taras Shevchenko for the genius of the *Russian people*. From the life-giving source of Russian culture, he avidly absorbed all the best creations of the genius of the Russian nation. Taras Hryhorovych *learned* from Herzen, Dobrolyubov, and Chernyshevsky. . . Leaning on the brotherly aid of his *Russian* friends . . . Shevchenko rose to heights of world culture. Shevchenko *hated all those who bowed before the moribund idealistic art of the West*. Shevchenko demonstrated passion-

ately that nowhere else in the world were there such great creations of genius, as those contributed to the treasury of the world's culture by the *Russian people*." Thus did they remake Shevchenko into a Russian nationalist.

In 1953 O. M. Kravets' wrote in the Academy's periodical *Visnyk*: "Shevchenko condemned the scribblings of Ukrainian bourgeois-nationalist falsifiers of the national life and customs." Then comes part of a quotation from Shevchenko which is supposed to apply to "Ukrainian nationalists": "Such scribblers are harmful, contemptible, and without conscience." The quotation carries a footnote, indicating the source with volume and page (Vol. III, p. 128, of the 3-Vol. work of Shevchenko of 1949). We look to the appropriate page, find the quotation in its context, and discover that Shevchenko applied the epithet of harmful scribblers to the Russian ethnographers-falsifiers, Zheleznov and Nebolsin. This kind of abuse of Shevchenko violates all bounds of decency. All these facts attest to the unchecked exuberance of Muscovite chauvinism and to the enormity of the oppression of Ukrainian culture under conditions of the present Moscow rule in the Ukraine.

Soviet editions of Shevchenko are replete with tendentious annotations and commentaries. The purpose of these comments is to stifle the mighty voice of Shevchenko, to thwart the poet's ideas, and to counterfeit his thoughts. Shevchenko had a great reverence for George Washington. The Ukrainian poet had visions of the time when the Ukraine would have her own Washington, free herself of Russian rule, and begin life in liberty in an independent Ukrainian republic:

"When shall we have our Washington
With new and righteous laws?
We surely will, some day!"

These lines of Shevchenko cause the Soviet rulers no end of pain. In order to mitigate, to some extent at least, the magic appeal of this statement of Shevchenko for the contemporary Ukrainian reader, who dreams about his own Washington as a fighter and liberator from Russia now more than ever, Bolshevik propagandists attempt to blacken and slander by devious means the name

of the Father of the United States, George Washington. Thus in the 1949 and 1950 editions of Shevchenko's works we find the following footnote to the name "Washington": "Washington, an American statesman of the 18th century, owner of great estates, headed the fight for independence from England; first President of the USA. In his activity he was hostile to the French revolution and favored economic concessions to England."¹² Up until 1948 this footnote looked very different: "Washington, a fighter for the liberation of North America from the rule of England, first President of the USA."¹³

The changes in the text of this footnote were obviously dictated by the intensification of anti-American propaganda in the USSR.

Like a mirror, the history of Soviet interpretation of the literary heritage of the great Ukrainian poet T. H. Shevchenko reflects the history of Russian-Ukrainian relations during the past 35 years. Whereas in 1929, the Ukrainian communists Skrypnyk and Chubar could still laugh in the face of the Moscow inspector from the Central Committee of VKP(b), now this inspector from Moscow had unlimited power in the Ukraine. On the orders of such inspectors, the *Kobzar'* of Shevchenko is now being published with "abridgements" and with "appropriate explanations." During the course of these thirty-five years Moscow has been unfaltering and deliberate in its falsification and mockery of Shevchenko. M. Hlobenko says: "In place of the whole idealistic and artistic wealth of the great poet, they leave a handful of filtered quotations and nauseatingly repetitive formulas."¹⁴ Lately, Soviet agitators have managed to do even without these filtered quotations.

Does this propaganda achieve its ends? Yu. Boyko believes that "the enemy has gained much ground . . . the reader approaches the works of the author filled to the brim with suggestive propaganda, and under pressure of this suggestion, Shevchenko's living

¹² Shevchenko, T. H., *Povna zbirka tvoriv v 3-kh tomakh*, I, Kiev, 1949, 631.

¹³ Shevchenko, T. H., *Povna zbirka tvoriv v 5-kh tomakh*, II, Kiev, 1939, 385.

¹⁴ Hlobenko, Mykola, "Shevchenko v sovets'komu literaturoznavstvi," *Zapysky naukovooho Tovarystva im. Shevchenka*, Vol. 161; *Zbirnyk filolohichnoyi sektsiyi*, Vol. 24, New York-Paris, 1953, pp. 199-200.

word does not carry any more the clarity, with which it would influence a fresh reader."¹⁵

In our opinion, this suggestive propaganda has the reverse influence upon the contemporary Soviet reader. The falsehood of this exaggerated propaganda is so obvious that even a reader of very limited education will see through it, and it will produce in him only disgust and hatred of the falsifiers of the poet's great works. Every line of Shevchenko's immortal poetry rectifies the falsehood of contemporary Bolshevik falsification of his works.

The greedy enemy:

“ . . . will never plough
The earth that lies beneath the sea
So neither will he put in chains
The living soul, *the Living Word!*”

¹⁵ Boyko, Yu., *Shevchenko i Moskva*, Munich, 1952, p. 5.

SALINE SOILS OF SOUTHERN UKRAINE*

P. BIRKO

The area of saline and alkaline soils (*solonchak* and *solontsi*) in Southern Ukraine and the Crimea is over two million hectares and occupies the warmest part of Ukraine. Development of sub-tropic cultures in the Ukraine is restricted to the Black Sea littoral, and with the development of irrigation from the Lower Dnieper this might become the most flourishing corner of Ukraine. For a long time this strip was considered a semi-desert, a concept based on the presence in this area of a number of saline and alkaline soils. The investigations of Dr. G. Makhov of 1925-1927 established that the salinity of soils is not only a result of climate, but depends in larger measure on the continual process of impulverization of salts from the sea. Later investigations indicate that the leading process here is that of de-salinating the soils which, to a large extent, aids in improving them.

Many well-known Russian experts, e.g. Professors Struve and Levitsky, demanded in the 1920-ies that agricultural capital investment in the dry-steppe areas of Ukraine be reduced, and the savings invested in the central areas of Russia. Even a Ukrainian scientist, Academician O. Sokolovs'ky, in a brochure published in 1927 warned against organizing grain agriculture in the Southern Ukraine. We find a repetition of these ideas in a more recent work by Naum Jasny, *The Socialized Agriculture of the USSR*, published by Stanford University in 1949.

The climate of the Ukrainian Black Sea littoral and the Northern Crimea is distinguished by its low rate of precipitation, its higher mean annual temperature, high summer temperature, and comparatively mild winters. In addition to drought years, there are rainy years and seasons, but, in general, the zone described is part of the most arid steppe of Ukraine.

Geomorphologically, the area under description can be divided into two parts: 1. the right bank of the Dnieper, lower parts of the

* This is an abridgement of P. Birko's article "Saline Soils of Southern Ukraine."

water divides of the Dnieper-Buh and the Buh-Dniester; 2. the left bank of the lower Dnieper.

The right bank of the Dnieper occupies the lower parts of the water divides and most of it belongs to the plateau, which is covered with 2-3 horizons of loess. The Dnieper and Buh have distinct terraces. The divides of the plateau contain a developed network of gullies running in the direction of the Black Sea. There are some steppe depressions on the divides between the rivers and gullies.

According to Dr. G. Makhov¹ the left bank of the Dnieper can be described as follows: the first terrace formed by alluvial deposits lies directly on tertiary limestone. The second sandy terrace of the lower Dnieper appears in the form of separate sandy masses, showing a soft-rolling or hilly-dune relief. The third terrace (or delta terrace) has, along with alluvial layers, islands of Wuerm loess and shows a flat, soft-rolling relief with a large number of depressions. The fourth terrace lies to the east of the third terrace and is completely covered with loess. The relief of this terrace is slightly rolling with a large number of small depressions. Near the Dnieper, the original left bank is represented by an eroded strip with gullies and hills, changing southwards into a slightly eroded steppe with large depressions. The following data characterize these depressions:

TABLE I

Name of depression	Depth in metres		Diameter in kilometres		Area in sq. kilometres
	minimal	maximal	minimal	maximal	
Khryashchevaty	2.5	5.5	2.1	2.5	4.1
Chorna Dolyna	9.5	19.0	2.6	5.5	11.2
Zeleny	4.0	11.0	5.2	8.6	35.0
Velyki Chapli	4.0	10.0	4.2	6.0	20.0
Ahaymans'ky	2.0	—	7.75	14.3	87.0

It is clear from this data that the depressions occupy a fairly large area which cannot be fully used by agriculture because of

¹ G. Makhov, *Hrunty bavovnykovoyi zony Ukrayiny*, Kiev, 1937.

the possibility of frequent inundation. And with these large depressions, a dense network of small dips is noticeable. The entire left bank region shows a well developed microrelief, which plays an important part in creating microclimate and complexes of soil coverage.

The parent material on which southern saline soils and alkalines were formed possess different physico-chemical properties due to their varied geological origin. Loess of different mechanical composition covers the entire right bank of the Dnieper and the primeval left bank. Soil-forming rocks of the Dnieper terraces are represented by alluvial deposits of different mechanical composition. The loesses of the watershed plateau of the left bank are silty-clayish, with a preponderance of fine silt and a large amount of clay. This is indicated by the mechanical analysis of specimen No. 1 taken at a point 5 km. northeast of the village of Pavlivka, at an elevation of 26 metres. (See Table II.)

The mechanical composition of soil-forming rocks near the seashore is characterized by the mechanical analysis of specimen No. 2, taken near the village of Strohanivka at an elevation of 22 m.

Closer to the Dnieper, soil-forming rocks of the plateau are more sandy. For their characteristic we cite data of the mechanical analysis of specimen No. 3, taken near the farm "Chervony Perekop" at an elevation of 42 m.

The rocks of the fourth terrace present sandy-silty loams with an increase in clay toward the south. The thickness of loess reaches 2-2.5 m. Characteristics are cited in the mechanical analysis of specimen No. 4, taken near the village of Novaya Mayachka at an elevation of 31 m.

For a description of soil-forming rocks of the Dnieper delta terraces we cite data of the mechanical analyses of specimens No. 5 taken near the Zimmerwald farm, 12 km. from Yahorlyts'ka Bay, which is of sandy near-clay composition. Analysis is also given of characteristics of clay-sandy soil-forming rocks from specimen No. 6, taken 1.5 km. west of the village of Brylivka at an elevation of 20 m.

TABLE II

MECHANICAL ANALYSIS DATA OF SOIL-FORMING ROCKS OF THE LEFT BANK ZONE

Locality where sample was taken	Geomorphological region	Elevation above sea level, metres	No. of specimen	Depth from which specimen taken, cm.
Near village of Pavlivka	Primeval left bank	26	1	190-200
Near village of Strohanivka	Primeval bank of Nadsyvashya	22	2	130-140
Farm in "Chervony Perekop"	Primeval left bank near Dnieper	42	3	300-310
Near village of Mayachka	Fourth Dnieper Terrace	31	4	180-190
Farm "Zimmerwald"	Dnieper Delta Terrace	—	5	110-120
Near village of Brylivka	Dnieper Delta Terrace	20	6	140-145

Locality where sample taken	Diameter of particles in mm.					
	Sand		Silt		Clay	
	<0.25	0.25-0.05	0.05-0.01	0.01-0.005	0.005-0.001	<0.001
Near village of Pavlivka	none	5	30	41	9	15
Near village of Strohanivka	none	11	26	41	6	19
Farm "Chervony Perekop"	none	14	37	24	8	17
Near village of Mayachka	1	26	25	21	8	19
Farm "Zimmerwald"	10	22	23	23	11	11
Near village of Brylivka	19	53	11	7	3	7

The soil-forming rocks of the right bank area can be divided into two groups according to their mechanical composition: 1. the loess of the watershed plateau, in which fine silt and clay domi-

nate; and 2. the loess of the river terraces and the Dnieper region, in which there are particles of coarse and fine silt with the addition of fine sand. Table III contains the analysis of the soil from the right bank.

TABLE III

Locality where specimen taken	Depth at which specimen taken, cm.	0.25	Diameter of particles in mm.			
			0.25-0.05	0.05-0.01	0.01-0.005	<0.005
Watershed Buh-Inhul	190-200	0.02	0.52	20.02	28.01	51.43
Low seashore plateau	150-160	0.08	2.03	18.50	23.49	55.90
Watershed Buh-Berezan'	190-200	0.01	1.79	17.99	23.89	56.32
Kherson, near Dnieper estuary	190-200	0.56	14.73	37.76	24.59	22.36

Soil-forming rocks of the saline zone of Southern Ukraine and the Crimea contain a certain amount of easily soluble salts of sodium. To recognize the true soil-forming process, the causes of salination have to be explained. Dr. Makhov² lists the following main processes of salination: a) accumulation of easily soluble salts in the process of weathering of rocks; b) the perpetual process of pulverization of salts with droplet-atomized seawater during the periods of southerly and southeasterly winds; c) dust-blowing of porous alkalis from the bottoms of depressions and the Sivash; d) capillary rise of salt-ground water in some localities.

Now it is important to determine whether soil-forming rocks contain easily soluble salts, and in what quantity so as to be able to decide upon the desired methods of irrigation.

Soil-forming types of the seashore are saline with easily soluble salts. To show the salt content Table IV contains an analysis of water extracted from specimens taken at a distance of 5 km. north of Skadov's'ke.

² *Ibid.*

TABLE IV

Nature of horizon	Depth at which specimen taken	General	<i>Alkalinescence</i> Normal carbonates	Dry remainder
Leached horizon	20-30	0.36	none	0.62
Sulfate horizon	50-60	0.026	none	2.411
Non-carbonate loess	80-90	0.065	0.005	1.283
Carbonate loessial argillaceous soil	130-140	0.218	0.023	0.882
Carbonate clayish sand	260-270	0.073	none	0.058
	Mineral remainder	Ion of sulfate ac.	Chlor Ion	Calcium Ion
Leached horizon	0.056	0.01	0.022	0.012
Sulfate horizon	2.167	1.375	0.090	0.054
Non-carbonate loess	1.226	0.587	0.226	0.034
Carbonate loessial argillaceous soil	0.887	0.312	0.421	0.041
Carbonate clayish sand	0.052	0.005	0.005	0.012

It can be seen from the above data that the soil layer is saline with easily soluble salts, which are scarcer in soil-forming rocks, particularly in the lower strata. Sand-alluvial layers of the central delta part contain very little easily soluble salts, or even none, due to their light mechanical composition.

Soil-forming types of the primeval left bank contain less easily soluble salts, as attested to in Table V by the analysis of water extracted from samples taken near Chapli.

TABLE V

Nature of horizon	Depth at which specimen taken, cm.	General	<i>Alkalinescence</i> Normal carbonates	Dry remainder
Chestnut soil	33-43	0.031	none	0.078
Carbonate illuvium	70-80	0.054	none	0.111
Loess	190-200	0.074	0.004	0.186
Loess	240-250	0.054	0.002	0.244
Loess	390-400	0.054	0.002	0.310
Loess	540-550	0.045	0.001	0.263
	Mineral remainder	Ion of sulfate ac.	Chlor Ion	
Chestnut soil	0.045	0.012		0.004
Carbonate illuvium	0.051	0.013		0.004
Loess	0.151	0.047		0.016
Loess	0.225	0.121		0.020
Loess	0.249	0.139		0.036
Loess	0.252	0.130		0.065

Data given above indicate that soil-forming rocks in their upper layer do not contain much salt; only at a depth of 2.0 to 2.5 metres does it begin to appear in larger quantities. Considerable alkaliescence is noticeable, which appears here from calcium-bicarbonate and not from normal salt.

The most salinated soil-forming types and soils are near the seashore and estuaries. The analysis data of water extracted from specimens taken near the village of Hromivka is in Table VI.

TABLE VI

Nature of horizon	Depth at which spcmn taken, cm.	Gen'l	Alkaliescence		Min. re- mainder	Ion sulf. ac.	Chlor. Ion
			Norm.	Dry re- carb. mainder			
Sweet chestn. soil	30-35	0.056	none	0.093	0.050	0.006	0.003
Carbonate illuvium	50-60	0.09	0.002	0.125	0.087	0.005	0.006
Loess	120-130	0.045	none	1.296	1.146	0.702	0.098
Fossil soil							
with gypsum	190-200	0.025	none	1.609	1.439	0.905	0.137
Fossil argillaceous soil							
with gypsum	490-500	0.020	traces	2.044	1.851	1.105	0.126

From this data we can see that below the depth of 1 metre there is a large quantity of sulfates and chlorides of natrium. The maximum of salts is at a depth of 490-500 cm.

Soil-forming rocks of the watershed plateau of the right bank strip have a small quantity of easily soluble salts. A noticeable increase of chlorides and sulfates occurs only at a depth of 400-450 cm. Lower banks of rivers and estuaries contain more salts which rise closer to the surface. On bottoms of ravines salts salinate the soil layer, outcropping at the surface.

As has been proven by Academician K. Gedroyts,³ the basic factor of soil salinity is the adsorbed natrium cation. The higher its content in the adsorbed complex of soil, the more ruin is done by it. During certain seasons, in soil-forming rocks of chestnut saline soils and alkali soils of Southern Ukraine easily soluble salts of natrium are present which cause the appearance of natrium ions in

³ K. Gedroyts, *Osolodeniye pochv*, Leningrad, 1925; *Pochvennyy pogloshchayushchiy kompleks i pochvennyye pogloshchennyye kationy, kak osnova geneticheskoy pochvennoy klassifikatsii*, Leningrad, 1925.

the soil solution and in the adsorbing stage of the soil absorption complex.

As a result of the low precipitations, small amounts of salt outcropping on the surface could not become quickly or deeply washed into the underlying beds. These salts enter the soil solution, creating a certain concentrate of sodium cations. Even a small amount of water in the soil will transform easily soluble sodium salts into solutions, while salts of calcium dissolve very slowly. During certain years and seasons such conditions are apparent in southern soils, where there is a preponderance of cations of sodium, which assume a place in the adsorbed complex, although there is not much salt of sodium in the soil.

When there is a decrease in the moisture of the soil, soluble carbonates fall out, decreasing their amount in the soil solution, and there is a proportionate partial increase in the participation of easily soluble salts of sodium. Decrease in the moisture in the upper layers of soil causes a capillary rise of moisture from the lower layers and with it, a certain amount of salts. The process of salts rising from lower into the higher horizons can be considered as a repetitive salination; this process repeats itself many times. With an increase of moisture in the upper layers, easily soluble salts spill out to a certain depth.

Thus, the main cause of soil salinity is an insufficient amount of water during the course of a year, or from year to year, i.e., an amount of water which can not wash salts to such a depth from which they could not be returned to the soil.

Characteristics of Separate Varieties of Soils

In describing the saline soils of Southern Ukraine, we are using Dr. Makhov's classifications.

Chestnut chernozem: Chestnut chernozem is directly related to southern chernozem which, according to our examination, does not possess any indications of salinity, although it does have a certain amount of adsorbed sodium. When the climate increases in aridity, southern chernozem changes into chestnut chernozem, which possesses prime indications of salinity; it can thus be distinguished from southern chernozem. In chestnut chernozem the beginnings of differentiation into genetic horizons is observed, but

the illuvial horizon is still insignificant in appearance. The horizon of carbonate concretions lies at a depth of 0.7 to 0.9 metres. The amount of humus is between 3.5 and 4%. In the subarable layer a nut-like granular structure is apparent. The amount of adsorbed magnesium increases and the proportion between calcium and magnesium is often three or four to one. Chestnut chernozem of Chapli contains adsorbed calcium in the amount of 22.2 milliequivalents and magnesium 6.5 milliequivalents. (Milliequivalents will further be designated as m/eq.) The amount of adsorbed sodium is 0.6 m/eq. or 2 % of adsorbed bases. The eluvial horizon is lighter than in normal chernozems. The illuvial horizon is not dense and has a light chestnut hue. Moisture retention of soil aggregates is 27 to 30% in the plowing layer and 40 to 43% in the subplowing layer. The amount of clay in the illuvium is 3 to 5%, indicating only an insignificant influence of the illuvial process. Hydrolytic acidity is 0.6 to 0.8 m/eq. Chestnut chernozems stretch in a strip south of the southern chernozem and occupy the lower parts of the plateau near estuaries and the seashore of the right bank.

Dark chestnut soils: This group comprises two varieties: dark chestnut, slightly saline soils and dark chestnut, medium saline soils. Dark chestnut, lightly saline soils have already lost the habitus of chernozems as a result of the evident, although insignificant, salinity of the soil. The profile is differentiated into genetic horizons. The illuvial horizon is slightly dense and has a chestnut hue. The eluvium occasionally contains small grey nests of silicic acid, which fell out of the solution. A platy structure is noticeable in the arable horizon and a nut-like granular, underneath. The illuvial horizon is at a depth of 34-45 cm., is not dense, and, as yet, has no harmful influence on the development of plants because of the slight translocation of clay among the genetic horizons, from 5 to 7%. The amount of humus varies between 3 and 3.5%. Moisture resistance of structural aggregates is 17 to 23% in the plowing layer and 28 to 32% in the subplowing. Hydrolytic acidity varies within the limits of 0.7 and 0.9 m/eq. In the complex with chestnut soils, the soils of this variety occupy microelevations and in the complex with chestnut and alkaline soils they occupy microdepressions.

Dark chestnut, medium saline soils have a more marked morphological salinity with a fairly apparent differentiation into gene-

tic horizons. The eluvial horizon is of a lighter color than in dark chestnut, slightly saline soils. Nests of silicic acid appear in a larger degree. In the arable horizon of the eluvium the platy structure is well defined, and in the subarable, a nut structure. Translocation of the eluvium into illuvium is well-defined. The illuvial horizon has a prismatic structure and is moderately tightly packed. It contains occasionally undecayed roots of plants as a result of insufficient aeration of the solum. The illuvial horizon reaches a depth of 28-35 cm. and contains 7 to 9% more clayey particles than the eluvial horizon. The amount of humus varies from 2.8 to 3.2%. Moisture retention of soil aggregates is 15 to 18% in the arable and 23 to 26% in the subarable horizons of the dark chestnut medium saline soil. Hydrolytic acidity is 0.9 to 1.1 m/eq. To illustrate the characteristics of adsorbed bases the following data of analysis of both varieties from the locality of Chapli is given in Table VII.

TABLE VII

Designation of soil	Depth at which sample taken in cm.	In milliequivalents				% of total		
		Ca"	Mg"	Na'	Total	Ca"	Mg"	Na'
Dark chestnut slightly saline soil	5-10	22.9	6.3	0.6	29.8	77	21	2
	35-40	19.4	5.3	1.1	25.8	75	21	4
Dark chestnut medium saline soil	5-10	17.8	5.3	0.8	23.9	74	22.7	3.3
	30-35	18.0	10.5	1.5	30.0	60	35	5

We can see from the above data that the amount of adsorbed magnesium is more and the ratio between calcium and magnesium is less than in chestnut chernozem. The amount of adsorbed sodium is quite small and does not correspond to the morphologically evident degree of salinity of these soils.

Chestnut soils: Two varieties belong in this group: chestnut medium saline and chestnut very saline soils. Differentiation of the soil profile is more clearly revealed in chestnut soils than in dark chestnut soils. Solodized horizon separates in the eluvial horizon and is of a light-grey color with a chestnut hue. The illuvial horizon is at a depth of 23 to 30 cm. and has a well-defined prismatic structure. There is a lot of undecayed plant root material in the illuvial horizon as a result of poor aeration of the soil. The illuvial

horizon is medium, very dense, and does not have a beneficial influence on plant growth. Sulfates are at a depth of 1.0 to 1.5 metres.

Chestnut medium saline soils occupy a middle position between dark chestnut medium saline soils and chestnut very saline soils. They cover the center of slopes of micro-elevations and are encountered only in the complex with dark chestnut and alkaline soils. The eluvial horizon is of a light grey color with a large amount of nests of silicic acid. The arable horizon is of a platy structure. In drying out it shrinks into clods which are crossed by a network of thin vertical tubes. In places of concentration of nests of silicic acid, the eluvial horizon is quite porous and has a nut-like structure. The illuvial horizon is at a depth of 25 to 30 cm. with a clearly defined transition from the eluvium into illuvium. It has a prismatic structure, is dense, and contains much undecayed plant root material. The amount of humus is from 2.2 to 2.7%. Moisture resistance of soil aggregates is 12 to 14% in the arable, and 17 to 21% in the subarable layer.

Chestnut very saline soils, in their morphological and physico-chemical characteristics, approach alkaline soils. They are encountered only in the complex and, depending upon the contents of the components of the complex, occupy different positions in the microrelief. In the virgin soils, the upper part of the eluvium shows a platy structure, in long cultivated sectors it is non-structural and silty; in drying out it shrinks into clods crossed by a dense network of thin vertical tubes. The color of the eluvial horizon is gray in the upper part and even whitish in the zone of concentration of silicic acid. The illuvial horizon is at a depth of 22-25 cm. and has a well defined prismatic structure. The horizon is very dense and contains a lot of undecayed plant roots. Gypsum and sodium salts are at a depth of 1.5 m. in chestnut medium saline soils and at a depth of 1 m. in very saline soils.

The illuvial process is very marked in chestnut soils; as a result the difference in the amount of clay in the eluvium and illuvium equals: in chestnut medium saline soils 10 to 13% and in very saline 13 to 17%. The amount of humus in medium saline soils is 2.2 to 2.7% and in very saline soils 1.9 to 2.3%. In proportion to

the degree of salinity, the amount of adsorbed magnesium increases and the proportion between calcium and magnesium varies between 2 to 2.6 to 1. The amount of adsorbed sodium is quite small. It is 2 to 4% of the sum of adsorbed bases for chestnut medium saline soils and 3 to 5% for chestnut very saline soils. Hydrolytic acidity increases in proportion to the morphologically evident salinity. It is 1.6 to 1.9 m/eq. for chestnut medium saline soils and 2.0 to 2.4 m/eq. for very saline soils. Moisture retention of soil aggregates is quite small in all horizons, and for this reason these soils form a strong crust after every rain.

Alkaline soils: The first variant of alkaline soil is the nut-like variety, which is close to chestnut very saline soils. Its profile does not show a separate whitish horizon. Other alkaline soils are columnar and divide into: crust, columnar and deeply-columnar. The crust alkaline soils have a thickness of the eluvial horizon up to 10 cm., the columnar, 10 to 15 cm., and the deeply-columnar, 15 to 30 cm. Continuous alkaline soils with a slight participation of chestnut soils are very prevalent in the Western Dnieper delta terrace on the Yavorlyts'ke peninsula, Chonhar, and on the Sivash coast of the Ukraine and the Crimea. Farther north of the sea the prevalence of alkaline soils decreases and they occupy the tops of microelevations.

In the zone of prevalent saline soils, microrelief is well developed and it adds to the movement of water on the soil surface. Dark chestnut soils prevail in depressions, slopes are covered with chestnut soils and the tops of hills with alkaline soils. There are spots where, within a distance of 4 to 6 metres from the center of a depression to the center of the elevation, all of the above-mentioned varieties of soil are encountered.

This phenomenon cannot be explained merely by the movement of water on the soil's surface. In our opinion, summits of microelevations play the role of wicks, pulling up depth water, and with it salts, from surrounding depressions, and thus enriching the elevations with easily soluble salts.

With a low water retention of soil aggregates, alkaline hills are unable to absorb all rainwater and a large part flows down into depressions. Easily soluble salts flow partially with the water. Depressions get almost 1.5 times more water than elevations. After a rain the depth of saturation and percentage of moisture vary in the different elements of microrelief. The higher the moisture percentage, the faster the movement of water through capillary tubes. Soils get saturated much deeper in depressions than on elevations, and salts penetrate much deeper than on elevations. As a result of evaporation of water from the surface of the soil, capillary rising of water from the bottom up begins. Elevations, having taken a small amount of water, dry out fairly quickly both in the upper and lower parts and begin to draw water from surrounding depressions. Capillary movement of water starts at a certain depth, and salts, moving along with the water, proceed from low to high and contribute to the degree of salinity of microelevations.

The eluvial horizon of all forms of alkaline soils is pale gray, even whitish, interspersed with white gritty silt, which is located on the border between eluvium and illuvium. The eluvial horizon has a platy structure in the virgin soil and is completely without structure when plowed. The amount of humus in the eluvium is 1 to 1.5%. The illuvial horizon is very dense and has a prismatic structure, which in the upper part of the horizon changes into distinct, semi-round heads of columns. Thus, such alkaline soils get their name of columnar alkaline soils. The amount of clay in the illuvial horizon is almost 25 to 35% greater than in the eluvial horizon. In consequence, the illuvial horizon of alkaline soils of all varieties, as well as of chestnut very saline soils, contain a very high percentage (from 18 to 23%) of filmy water, which cannot be utilized by plants. During the period of dry May winds, plants on alkaline soil spots perish, although the soil still contains a fairly large reserve of water. In proportion to the difference in the mechanical composition of alkaline soils, the same difference is noticeable in adsorbed bases. To illustrate this, characteristics of the adsorbed base are given in Table VIII.

TABLE VIII

Name of locality and variety of soil	Depth at which sample taken in cm.	<i>In milliequivalents</i>				% of total		
		Ca"	Mg"	Na'	Total	Ca"	Mg"	Na'
Village of Kalanchah, deep—columnar alkaline soil	5-10	7.9	3.5	0.9	12.3	64	29	7
	25-30	11.2	5.2	1.2	17.6	64	29	7
	60-70	17.2	9.6	2.3	29.1	59	33	8
Chapli, deep—columnar alkaline soil	5-10	13.5	2.9	0.4	16.8	81	17	2
	10-15	16.8	6.7	0.7	24.2	69	28	3
	20-25	24.1	13.4	1.4	38.9	62	34	4

From the above data it can be seen that the sum of adsorbed bases in the eluvial horizon is almost 2.5 times smaller than in the illuvial. The amount of adsorbed sodium in some places is lower than 5% and rarely reaches 7 to 8%. It can be stated in general that even in typical alkaline soils adsorbed sodium is insignificant and can only produce slight salinity, about the same as is observed in chestnut chernozems. Hydrolytic acidity varies within limits of 2.8 and 4 m/eq. in the eluvial horizon, which constitutes from 20 to 40% of the sum of adsorbed bases of this horizon.

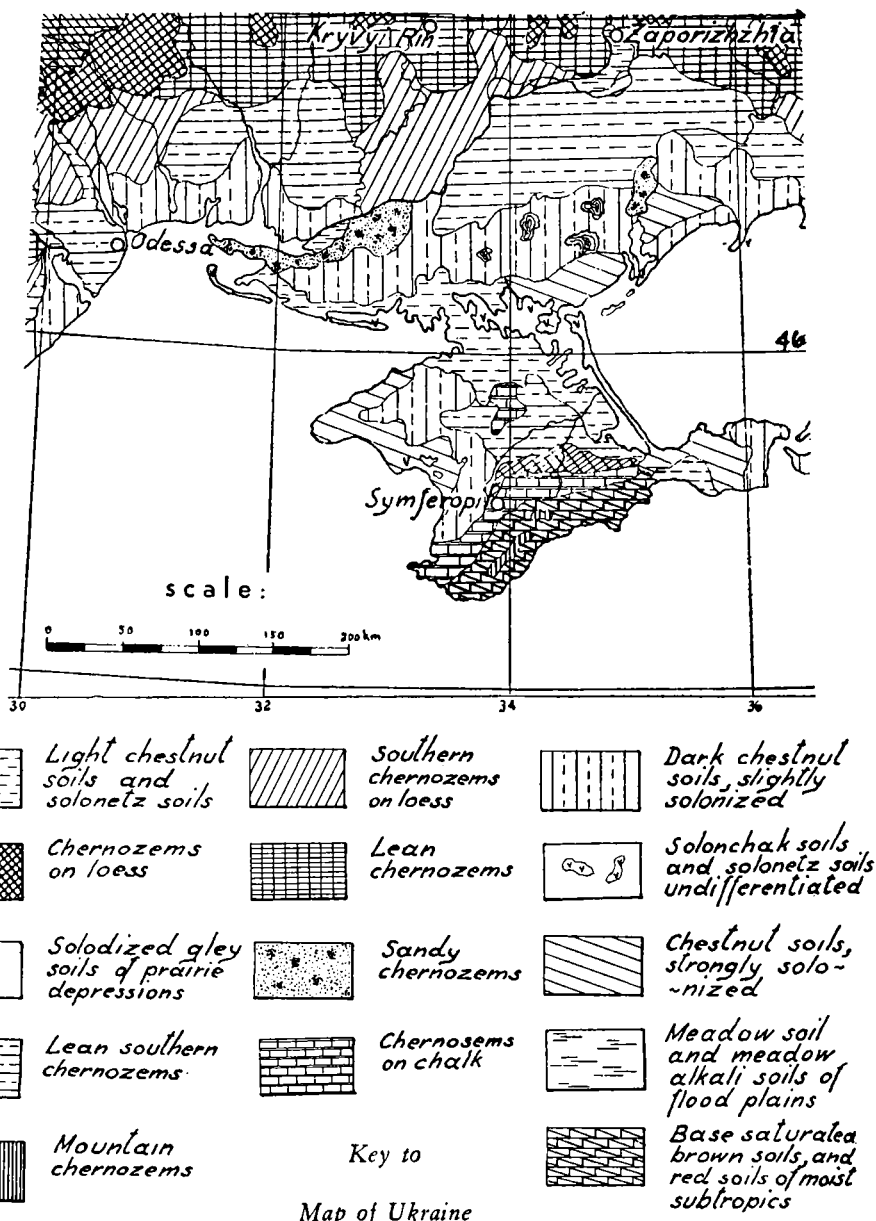
In spite of the low percentage of adsorbed sodium, moisture retention of aggregates of the illuvial horizon is very low. Brought to the surface, the illuvial horizon, even with very little rain, becomes thoroughly drenched and forms a firm crust under which plants die, especially if the crust forms before they come up. In depth, in untouched condition, the illuvial horizon of alkaline soils swells so much under moisture that all capillary movement through it ceases, both from the top down and vice versa.

From the above characteristics of soils it is clear that nature does not show stages of the saline process of soil-forming separated from each other by ages. All three stages: alkaline, saline and solodized proceed simultaneously from primeval beginnings of salinity with a progressive increase of the degree of solodizing.

Fragment from

MAP OF SOILS OF THE UKRAINE

Composed by Dr. G. Makhov



REVIEW ARTICLE

ACADEMIC FREEDOM IN THE U.S.S.R.

*A Review of the Conference Held in New York
on April 3-4, 1954*

The speakers at the Conference on Academic Freedom in the U.S.S.R. constantly emphasized one major theme: the intimate connection between Soviet political action and what is so often considered the abstract world of scholarly research and science. And this is not simply expediency but is an inherent characteristic of the Bolshevik regime which, to exist and develop, must subordinate all fields of intellectual endeavor to the Party's aims and requisites. Either directly or obliquely, each speaker made this point, and the ultimate conclusion must be, in the words of Professor Ohloblyn, ". . . how can we speak of academic freedom where no freedom exists and where, from the theoretical basis of Bolshevism, there can be no freedom, political, social, economic, or cultural?"

This Conference — Academic Freedom in the U.S.S.R. as a Threat to the Theory and Practice of Bolshevik Doctrine — was held in New York City on the weekend of April 3-4, 1954. The original suggestion came from the American Committee for the Liberation from Bolshevism, and the support, from the Institute for the Study of the History and Culture of the U.S.S.R. A special Organizing Committee, made up of scholars from various nationalities in the Soviet Union and participating on a basis of equality, directed the Conference. The principle speakers were emigre scholars, former professors and professional men, who had lived and worked in the Soviet Union. At the present time, many of these men are now connected with American colleges and universities.

Many of the members of the Ukrainian Academy of Arts and Sciences in the U.S. participated in the Conference. Professor Vasyly Hryshko spoke on "Academic Freedom in the Soviet Union in the Field of Law"; Professor P. Kovaliv, on "Soviet Linguistic Policy"; Professor Nicholas Kubansky, on "Conditions of Scien-

tific Work in the Field of Geology and Geochemistry in the Soviet Union"; Professor Michael Mishchenko, on "Psychiatry and Neurophysiology in the U.S.S.R."; Professor Petro Odarchenko, on "The Study of Ukrainian Literature in the U.S.S.R."; Professor Olexander Ohloblyn, on "Soviet Historiography"; Professor Michael Vetukhiv, on "Genetics in the U.S.S.R."; and Professor Ivan L. Zamsha, on "Academic Freedom in the Field of Economics in the U.S.S.R."

The Conference was divided into three sessions: the Saturday morning session, chaired by Dr. George L. Kline, was devoted to the pure sciences; the afternoon session, chaired by Professor Philip E. Mosely, to social sciences; and the Sunday afternoon session, chaired by Professor Frederick C. Barghoorn, to history and literature. There was a brief opening statement by Professor Philip E. Mosely.

The first address by Professor Alexander Philipov, "Bolshevik Philosophy and Academic Freedom," was one of the most interesting and discerning. In general terms he described many of the basic tenets of Bolshevik philosophy. One of the most important is denoted by the word *partiinosť*, the interpretation of all phenomena in the interests and for the ends of the Party; its connotations are vast: "scientific and philosophical conclusions that are advantageous to the Bolshevik Party are predetermined, so that the task of scientific research reduces itself merely to proving and defending these conclusions." Under these conditions, academic freedom and creative freedom cannot exist.

Partiinosť can be traced to Marx who saw truth as a reflection of class character; and to Lenin, for whom it must "... reflect any judgment . . . which rests openly and directly on the viewpoint of a particular social group such as the proletariat." Both emphasized class interests. Stalin, substituting for political reasons the national Russian idea for the international class idea, "guided" the Revolution to the paradoxical stage where the "most advanced socialist ideology" was based to a great extent on the old ideas of aristocratic and patriarchal Russia.

Several concepts, which were considered guiding posts to communist thought, have been discarded during the Stalinist regime.

In the *Short Course of the History of the Communist Party*, 1938, Stalin for political reasons dispensed with dialectics (the law of synthesis, the law of identity of opposites, and negation of negation were discarded). New postulates were formulated: the organic connection of all things; eternal change; transition of quantity into quality; and the struggle of opposites. Professor Philipov remarked that the introduction of these elements created a dependence on formal logic, which, until this time, had been thoroughly condemned.

In the philological dispute (1950), Stalin proceeded to discard another basic tool of the communist thinker, historical materialism, which, he felt, "represented a danger to the stabilized Soviet system." Of course, in the philosophical system of historical materialism, if ideology is the resultant of the means of production, then a change in the means of production would result in a new ideology. This would mean the demise of Marxism-Leninism, and, eventually, Stalinism. With this in mind, Stalin denied that language has a class character and maintained that the "elimination of several 'bases' does not lead to the elimination of a particular language."

Thus, Stalin, the ideologue of the Communist movement, eliminated dialectics in the thirties and historical materialism in the fifties. In each instance, it was not considerations of truth that prompted the decisions, but political feasibility.

Professor Michael O. Vetukhiv discussed the Lysenko problem in detail in his speech, "Genetics in the U.S.S.R." In the twenties the Soviets already realized the political importance of the control of biology, genetics in particular; Lenin personally took an interest in the work of Michurin. However, in the thirties — a period of ever-increasing control over all branches of knowledge — the communist leaders sought a figurehead who would rationalize genetics to meet the *a priori* demand to alter, quickly and according to plan, "nature as a whole — plants, animals, and man himself. . . ." There is enough evidence to believe that Stalin, personally, chose T. D. Lysenko to be the "biological dictator" of the Soviet Union.

During 1936-1941, a period of Stalinist consolidation, N. I. Vavilov, Director of the Institute of Genetics of the U.S.S.R.'s Academy

of Sciences, was replaced by Lysenko, who, obedient to the Party's demands, attacked Western genetics and defended Michurin's doctrines and Stalin's leadership. As further proof of Party support, Stalin personally defended Michurin biology; it was the basis of physiology, medicine, etc. And in 1948, at a famous session of the Academy of Agricultural Science, this so-called Michurin biology succeeded in completely defeating genetics.

Lysenko, the political dictator of Soviet biology, does not impress with his theoretical statements. He writes, for example, that "rye can evolve from wheat, different species of wheat can produce rye. Species of wheat can produce barley." One of his followers asserts that it is possible to change breeds of animals by "vegetative hybridization," and he continues: "The blood of chickens is injected subcutaneously into ducklings . . . the plasma from the yolk of duck eggs is injected into chickens. The result — chickens possessed new characteristics."

After the war, the attacks against the theories of Weisman, Mendel, and Morgan continued. However, since Stalin's death, there is evidence that the position of the central figure of these attacks, Lysenko, was menaced. He was obliquely attacked by two scientists in a journal of the Academy of Sciences and in articles which appeared in the Soviet press. Professor Vetukhiv concluded with the conjecture that, possibly, "the 'epoch' of Lysenko is coming to an end," and that "Tsitsin will be called upon to create a new and different form of dictatorship in biology."

Professor P. Kovaliv discussed the pernicious pressures of the Bolshevik regime on philology in his paper, "Soviet Linguistic Policy." Although Nikolai Marr introduced his linguistic theory in the twenties, it was not until later that certain political changes made it central and prevailing.

In the early period some freedom was permitted in the linguistic field because the Soviets were interested in the "successful realization of the general Soviet nationality policy." Without communist interference, great advances were made in the study of languages in the various republics. In the Ukraine, for example, there were many important scholarly contributions (Buguk's work, *An Attempt at a Linguistic Geography*; six volumes of the *Academic*

Dictionary of the Ukrainian Language; and many dialectological studies were published).

However in the thirties the Party line switched from an attack upon Russian chauvinism to a defense of the priority and supremacy of all things Russian . . . and with catastrophic results upon linguistic studies. Many of the important scholarly achievements of the previous period were abandoned (the *Academic Dictionary* was proclaimed harmful and a new Russianized orthography was substituted for the Ukrainian). This process of Russian nationalism and glorification continued through the forties, and a resolution of the period declared that "no artificial separation of the Ukrainian language from the Russian is to be introduced." In 1947 the journal, *Linguistics*, proclaimed the thesis that "the lexical wealth of the contemporary Ukrainian language . . . has been and is being formed under the benevolent influence of the language of the Great Russian people. . ." As Professor Philipov pointed out in his article, the "most advanced socialist" ideology continues to reflect more and more the old chauvinistic ideas of aristocratic Russian society.

Professor M. Mishchenko's paper, "Psychiatry and Neurophysiology in the U.S.S.R.," discussed psychiatry and its place in the Soviet Union. Psychiatry, as all other branches of science, was converted into a "political appendage" of the Bolshevik regime. Various schools of psychiatry, which developed in the early part of the Soviet regime, were crushed (Protopopov's activities were restricted; Bekhterev and the Reflexological school were disbanded, etc.). More and more psychiatry came under the control of the communist regime. Pavlov's scientific research was altered to fit the demands of the state.

Professor N. Kubansky in his paper, "Conditions of Scientific Work in the Field of Geology and Geochemistry in the Soviet Union," describes the position of these disciplines in the U.S.S.R. The relative freedom in the early stage of the Bolshevik regime gave way to strict Party control and discipline. From the thirties on, the Soviet "educational policy" replaced the "principle of free study and free scientific thought by the . . . slogan, *partiinost'*, in science." This meant, in general terms, to attack Western geologi-

cal science and promote a Soviet geology based on dialectical materialism. Professor Kubansky concluded with the statement that, although the Soviet Union has produced thousands of geologists, the creative group among them is very small.

Professor I. Zamsha spoke on "Academic Freedom and Economic Science in the U.S.S.R." The changes in economic policy in the Soviet Union were reflected in the changes in teaching methods. The writings of many of the most outstanding Marxists (Bukharin, Preobrazhenski, etc.) were stricken from the textbooks; professors were discharged. The Soviet regime, Professor Zamsha pointed out, is quick to suppress any report, however objective, it reflects adversely upon "progress" in the Soviet Union. And he concluded, ". . . conditions which deny or restrict the academic freedom of the individual in the U.S.S.R. have not changed for the better in recent years but, on the contrary, have actually become worse."

"Academic Freedom in Soviet Jurisprudence" was the subject of Professor Vasyly Hryshko's report. During the twenties, as was apparent in the other speeches, some freedom of research and development was allowed, but only within the limits dictated by Marxist doctrine. Thus, penal, civil, and agricultural codes came into being which reflected the Marxian philosophy. At the Fourteenth and Fifteenth Congress of the Communist Party, "jurisprudence was assigned the task of laying the foundations for building socialism." Kaganovich spelled out the directives which the jurists were to follow. At the outset he stated, "the revolutionary dictatorship of the proletariat . . . is not bound by any law," and added a phrase which has become familiar: "science is dependent upon politics." In the period of consolidation, the Soviets were able to eliminate the quasi-independence of Soviet jurisprudence.

Soviet law became socialistic, which meant in effect that its primary task was to carry out the Party's demands. The principle theoretician from this period on was Vyshinsky, who based his idea of the "socialist content of Soviet law on. . . Stalin's writings and speeches."

The lack of freedom in the field of Soviet Science has severely hampered the production of theoretical works — the young scholar

is simply not interested in legal theory because of the danger of voicing views that might conflict with the official Party line.

Professor P. Odarchenko in his paper, "Academic Freedom and National Culture," demonstrated how literature has been turned into a tool of Bolshevik power. Party standards demand: a concentration on ideology on the writer's part, and, if necessary, a distortion of the facts to prove that the writer is "a product of the beneficial influence" of the "foremost Russian literature"; that the writer attribute his success to the aid of his "elder brother" the Russians and repeat his love for Russia and the Great Russians.

Professor Olexander P. Ohloblyn's paper, "Soviet Historiography," while concentrated chiefly on the developments in historical science, pointed out that to understand the fluctuations in the course of Soviet historiography, we must be aware of what "political interests the Soviet government at any given time attached to historical science."

There was a limited freedom in the early years of the Bolshevik regime. Why was this limited freedom possible? The explanation is in the political problems which the Bolshevik state faced. The regime had to maintain itself at all costs, and, fearing greatly the restoration of the pre-revolutionary political and social order, concessions were made to the non-Russian people of the U.S.S.R. Taking advantage of these concessions, great scholarly advances were made in the Ukraine and Byelorussia especially; at the same time other historians, under Pokrovski's influence, denigrated the Great Russian past and traditions.

In the thirties the Bolshevik regime, having realized that "bourgeois nationalism" was becoming "a dangerous element in the non-Russian republics of the U.S.S.R.," instituted an "ideological rearmament." This movement included the demands that the historian apply "Marxist-Leninist methodology," the "theory of the class struggle as the chief factor in the historical process," and, most important, "Bolshevik *partiinnost'* in historical science." From his personal experiences Professor Ohloblyn described what Bolshevik *partiinnost'* meant to him. "*Partiinost'* in science was silent obedience, unquestioning and even enthusiastic acceptance in one's works of *everything* that the Party at any time commanded, and, most

important, at the time when the Party commanded." It meant a "great degradation of the professional and personal integrity of the historian."

Why this "ideological rearmament" in this period? At this time the dominant factor in the Bolshevik scheme of things was the centralized communist empire, a "Soviet nation." In stressing Soviet patriotism the Soviets also placed the Great Russian people in the leading role. Naturally, any tendencies toward nationalism on the part of the subject peoples and any derision cast upon Great Russian history, had to be eliminated completely. Unity under the Great Russian people and a glorification of the Russian national tradition dominated all branches of science. A terrible oppression followed in the wake of this "ideological rearmament," an oppression which included the liquidation of historical science, except as it served the Russian master.

The implications of the full title of the Conference — Academic Freedom in the U.S.S.R. as a Threat to the Theory and Practice of Bolshevik Doctrine — are clear. The prefatory words of Professor Ohloblyn deserve to be quoted in their entirety, for they directly concern these implications.

Academic freedom and historical science in the U.S.S.R.? I think these are two separate, directly contradictory concepts, for how can we speak of academic freedom where no freedom exists and where, from the theoretical basis of Bolshevism, there can be no freedom, political, social, economic, or cultural. We are discussing academic freedom at the conference only because the Bolsheviks insistently spread the propaganda that true science can exist only in the Soviet Union; unfortunately such propaganda wins the credence of some American scholars. Between academic freedom and historical science (like every science) there is a very close connection. Academic freedom is the *spiritual atmosphere* in which alone true science can exist and develop.

* * * * *

Academic freedom cannot exist in the Soviet Union, because, as was shown time and time again in the course of the Conference, it would invalidate many Bolshevik "discoveries" and reveal the falsity of much Soviet doctrine. Therefore the Soviet masters must rationalize it out of existence; free science, they say, serves also the

interests of its masters. And, while making such statements, they seek constantly to utilize the scientific achievements which are the fruits of academic freedom.

The different branches of learning in the West — and in Tsarist Russia in the early part of the twentieth century — were moving in the direction of independent status, i.e. distinct disciplines with their own philosophical systems. In the Bolshevik regime we see just the opposite: the ever-increasing loss of independence and, eventually, the complete reliance upon the regime for the definition of truth. All science has become the handmaiden of the state; its greatest glory is to serve the state, rationalizing the falsities and effacing the contradictions. In this very service lies the greatest hope of free science. For, based upon falsity and deceit, what truth can evolve or what verities be proved? Certainly, it can be admitted that Soviet science has made advances in the fields that are necessary to sustain the communist drive to power. But can this continue when the scientist and scholar is simply the tool of the state or when the regime rejects experimental data because it does not conform to a doctrine adopted *a priori* by the Party? We can measure the great losses in murders and the denial of human dignity, but who can measure the intellectual losses that resulted from the barren years of the dominance of the Michurin-Lysenko theory or of Marrism?

While the speakers at the Conference were delineating the state of academic freedom in U.S.S.R., a broader, more profound pattern emerged. These men succeeded in sketching the outlines of a Soviet system that sought control of the intellectual's mind, and, having acquired this control, demanded that the scholars prove the eternal beneficence of their debasement. The central figures in the pattern are the political purposes of the moment, and the scientist's work is only valuable if it furthers that purpose. This general pattern in its minor limits is rational, that is, Soviet patriotism can be understood in the context of the thirties and forties; however, the personal, intimate pattern postulates an appeal and a dependence upon the irrational — blind obedience and suspension of reason — if it can be understood at all. The mind that doubts and tests; the mind that selects after all data has been collected —

is suspect and un-Soviet. And in this pattern the powerful political figure, perhaps a third-rate intellectual, dictates conclusions to the scientist.

BOOK REVIEWS

Barrington Moore, Jr., *Terror and Progress USSR; Some Sources of Change and Stability in the Soviet Dictatorship*. Cambridge: Harvard University Press, 1954, xvii, 261 pp.

This is a rather unique volume and is the first of its kind to be published under the auspices of the Harvard University Russian Research Center. Barrington Moore, who is best known for his earlier work, *Soviet Politics; The Dilemma of Power*, has attempted a very broad analysis of certain of the more crucial and sensitive aspects of the Soviet system which seriously affect its capabilities.

After a brief survey of the instruments of control in the Party, the army, the secret police, and the major segments of the industrial economy, Moore proceeds to examine in the second chapter the extent to which political controls can be said to impinge upon the operation of the Soviet industrial plant and at the same time are indispensable to the maintenance of its tempo. His sound analysis of the role of the peasantry and its second class status under a system of modern serfdom constitutes one of the best brief treatments of this problem which has plagued the regime since the introduction of collectivization. The two chapters which deal with the intelligentsia, the conditions of its service to the regime, and the lack of complete trust existing between them are probably the most significant in this volume and contain much new material even for the Soviet area specialist. A chapter on the impact and role of terror describes both the nature and limitations of some of the MVD activities. A concluding chapter, bravely entitled "Images of the Future," is based on the sound assumption that the Soviet leadership's actions will be limited as well as conditioned by the problems which are implicit in the nature of the system.

Moore recognizes that many scholars might regard his performance as "essentially a foolish one." This reviewer would regard the concluding chapter as the weakest because of its highly speculative nature. In it Moore contends that pure power considerations may have to be sacrificed by the regime as a result of the need to "adapt to the technical requirements of the human and natural situation" or of the need to revert to "traditionalism." Yet in recognizing the limitations of the regime as analyzed by Moore one need not accept his thesis that somehow the post-Stalinist regime is more pliable and more willing to retreat than was its predecessor.

Possibly the attempt to make the work "up-to-date" has led Moore to place undue emphasis upon the changes which have occurred in the Soviet Union since Stalin's death. One might question his assertion that the amnesty of March 28, 1953 was "liberal" (page 5) or "sweeping" (page 174). Several errors have crept into the work. Possibly the most serious of these is Moore's assertion that the non-Russian nationalities constitute "about 40 per cent" of

the population of the Soviet Union (page 198). He states that this figure is based on official Soviet estimates although he cites no source. Apparently the statement is based on the results of the Soviet census of January 1939. Moore's error lies in his failure to correct his estimate to take into account Soviet acquisition between 1939 and 1945 of territories with non-Russian populations of more than 20 millions — a fact which brings the non-Russian population to something close to half of the total Soviet population. On page 18 it is not clear whether the reference is to Uzbekistan itself as an autonomous republic or to the Kara-Kalpak ASSR; if the former is the case, the statement is incorrect.

Much of the material presented in this volume will not be new to the serious student of the Soviet system, but it must be recognized that Moore has provided many insights into the operation of the system as well as some very sophisticated observations.

JOHN S. RESHETAR, JR.

Hans Kohn, *Pan-Slavism, Its History and Ideology*, University of Notre Dame Press, 1953, viii and 356 pp.

The usefulness and timeliness of this book scarcely needs mention. In producing the first comprehensive history of Pan-Slavism in the English language, Professor Kohn has filled a noticeable gap in American literature on Eastern Europe. His work is certainly destined to be the standard reference on this subject for a considerable time. As has been the case with the other writings of Hans Kohn, this history of Pan-Slavism will probably be of interest not only to a narrow circle of specialists, but also to the general public. Many have heard of Pan-Slavism, which has often struck the fancy of the Western public during the last hundred years (most recently toward the end of and immediately after World War II), but very few have any idea of what it is really all about. Now the answers to be found in Hans Kohn's book.

The body of the text reads smoothly, and the scholarly minded reader will be delighted by the numerous interesting notes, in which special points are elaborated. The author unites an imposing erudition and a sound and positive approach to his moot subject; Professor Kohn combines a sincere and warm sympathy for all the Slavic peoples with a keen understanding of the dangers inherent in romantic nationalist myths.

I have found only two factual errors. The Kalmyks, a people of Buddhist faith, are listed (p. 228) among the "Mohammedan autonomous Soviet states." And the position toward Austria of Roman Dmowski, the Polish National-Democratic leader, in the period preceeding World War I is described incorrectly. Hans Kohn states (p. 194) that Dmowski had "the conception of a rapproachment between Russia and Austria-Hungary against German expansion, if possible with the West." In reality, a Russo-French

entente already existed, so an understanding with the West against German expansion was not an aim but an existing fact. And Dmowski regarded Austria as hopelessly subjugated to Germany, and therefore doomed to destruction. Dmowski's National-Democrats made a considerable effort to turn the Galician Poles away from their traditional pro-Austrian orientation and to inoculate them with the idea of the desirability of the unification of all Polish territories within the Russian empire.

The Ukrainian reader will note with satisfaction that Professor Kohn's book gives fair attention to Ukrainian matters. Unfortunately, such treatment is still a laudable exception in this country.

Hans Kohn does something even more unusual. He uses the native Ukrainian form of Ukrainian geographical designations and names. Thus, the capital of Galicia appears as *Lviv* rather than the German *Lemberg*, the Polish *Lwów*, or the Russian *Lvov*. However, Hans Kohn is not completely consistent in this respect. For instance, the Soviet Ukrainian playwright and communist boss, Korniychuk, is referred to as "Korneichuk," the Russianized form of his name (p. 232). What seems incomprehensible is that Professor Kohn should speak of the Slovak capital, Bratislava, and the Czech city of Budejovice as Pressburg (p. 12) and Budweis (p. 233), the German forms. Since 1919 the Slavic forms have been accepted internationally and they are to be found on all maps.

We do find certain *lacunae* in Hans Kohn's treatment of Ukrainian Pan-Slavism. In his treatment of the Society of St. Cyril and St. Methodius he quotes the well-known poem of Shevchenko devoted to the glorification of the Czech reformer and martyr, Jan Hus. Here there should also be a reference to Kostomarov's *Book of Genesis of the Ukrainian People*, the exposition of the Society's political philosophy, and also the most striking expression of the typically Ukrainian brand of democratic Pan-Slavism. It is also regrettable that Professor Kohn did not trace the later transformations of the "Kievan Pan-Slavism" and its impact on modern Ukrainian national consciousness. This line of development went from the Cyril and Methodius Society through Drahomanov to Hrushevsky.

There was a close parallelism between Ukrainian Pan-Slavism and Czech "Austro-Slavism," both of which were democratic and federalistic. It would have been illuminating to have a comparative analysis. In addition, Drahomanov's criticisms, as a democratic Pan-Slavist, of the policies of the tsarist government toward the Balkan Slavs, merit attention. Drahomanov's warning to his Balkan friends during the Russo-Turkish War of 1877 that "a despot cannot be a liberator," appears truly prophetic in the light of more recent events. Consideration of these problems would have lengthened Hans Kohn's book only slightly, but would have opened important new vistas.

In closing, let me make a few remarks about the general method used in this work. Kohn's *Pan-Slavism* consists chiefly of excerpts and condensations from the original writings of the Pan-Slav publicists. The purpose of this

method is to let the sources speak for themselves. But sometimes Professor Kohn seems to go too far in this direction. While of course it was not necessary to "refute" all the romantic and sometimes nonsensical ideas which appear, more evaluation and synthesis would have been useful. By failing to give a perspective, Hans Kohn leaves all the events and ideas on one plane, without sufficient plastic relief. To the American reader, who can be assumed to lack background knowledge in this field, a great number of personages and their ideas are introduced, without an adequate assessment of their significance and impact, without differentiation between those whom time has proved to be influential and historically productive, and those who must be counted among the crackpots of Eastern Europe. Although the differences among the various brands and types of Pan-Slavism are implicit in the material presented, they are not made clear and explicit. In a word, Hans Kohn's *Pan-Slavism*, for all of its indisputable high qualities, suffers from a weakness not unusual in American historical literature, an overly narrow and timid concept of scholarly objectivity. One is reminded of Theodore Mommson's provocative saying, "Imagination is the mother of History as well as of the other Muses."

IVAN L. RUDNYTSKY

D. M. Lebedev, *Geografiya v Rossii XVII veka (Geography in Seventeenth Century Russia)*, Akademiya nauk SSSR, Institut geografii, 235 pp. and maps.

This publication of the Academy of Sciences of the USSR, one of the series of the Institute of Geography, attempts to prove the exceptional part played by the Muscovites in geographical research of Siberia and Northern Asia in general. D. M. Lebedev takes every opportunity to stress the importance of Muscovite research in Asia and its exceptional role in world science (e.g., when he refers to the works of European scholars and researchers, he points out that most of them used Muscovite material). Following this line, the author does not, for example, recognize the Ukraine but treats it as the "European part of Russia."

The book contains a chapter "Cartography in XVII century Russia and its Influence on Western Europe." This is filled with some errors and lack of space prevents me from correcting them. It must be stated in general that neither Remezov's *Atlas* nor the works of Godunov can stand comparison with similar works of the period, and this in spite of the fact that the Europeans are charged with "stealing Muscovite material." Lebedev reports as of momentous importance that "A. Andreyev discovered an excellent work *Sluzhebnyaya chertezhnaya kniga (A Drawing Textbook)* by Remezov." Thus it would appear that the book was unknown before 1940 (?), whereas J. Baddeley had not only given a detailed description of it, but had reproduced

beautiful copies of its pictures and much of its source material. Lebedev seems for some reason to have deliberately ignored the monumental work of John F. Baddeley, *Russia, Mongolia, China*. From the fact that the insert map on p. 33 contains English inscriptions, we can conjecture that it was made from Baddeley's book.

The author does not overlook the fact that the most detailed description of Siberia was made by Yu. Krizhanich, a Croatian exiled to Tobolsk, in his *History of Siberia*, which was in Latin. The work was translated into Russian and Lebedev says, "its author was not a Russian, but the book can be included in Russian geographic thought because of the author's fifteen year sojourn in Siberia and his use of Russian sources and the reports of local people" (p. 206). A similar statement is made about the Moldavian Greek, M. Spathary.

While the work is filled with quotations from such authorities as Lenin, Marx, and Stalin, other noted scholars are omitted. Thus, there is no mention of the journeys of A. Jenkinson, Peter Mundy, or Hans Schiltberger. There are also many erroneous statements: "The Russian envoys . . . discovered the road from Russia to China."

It is apparent that the author used works of European authors in translation for the most part. And the material on ancient journeys of Muscovites was taken from works of pre-World War I. Thus, the only thing the author did was to introduce a new Soviet interpretation into old geographical and historical descriptions.

JOHN V. SWEET

CHRONICLE

During the period from January 1, to July 1, 1954 the following lectures were delivered before the plenary sessions of the Academy:

- 30 January 1954 —Lecture by Dr. A. D. Margolin: *Research on the Problems of American Politics in respect to the U.S.S.R. and the Ukraine.*
- 14 March 1954 Grand Conference in Honor of Taras Shevchenko, with the participation of the Ukrainian Academy of Arts and Sciences in the U.S. and the Shevchenko Scientific Society in the U.S.
- Dr. M. Shlemkevych: *The Basis of Shevchenko's World View.*
- Prof. P. Odarchenko: *Shevchenko in the Soviet Interpretation During the Last Thirty-five Years.*
- Dr. S. Demydchuk: *Shevchenko in American Encyclopedias.*
- 3 April 1954 —Lecture by Prof. Yu. Šerech: *Problems of the Formation of the Ukrainian Language.*
- 2 May 1954 —Lecture by Prof. A. I. Yakovliv: *Bohdan Khmelnytsky's Treaty of 1654.*
- 15 May 1954 —Prof. K. Kossenko: *The New Achievements of the Paint Industry.*
- 4 June 1954 —Prof. O. Ohloblyn: *The Pereyaslav Treaty of 1654.*
- 12 June 1954 —Dr. M. Shlemkevych: *The Problems of the Unity of Spiritual Culture (Science, Art and Religion).*

The following Lectures and Seminars were held under the auspices of the Sections and Commissions of the Academy:

LITERARY AND PHILOLOGICAL SECTION:

- 27 February 1954 —Prof. P. Odarchenko: *Shevchenko and the Pereyaslav Treaty.*

BIBLIOGRAPHICAL SECTION:

- 6 March 1954 —Prof. V. Doroshenko: *Life and Activity of Yu. P. Tyshchenko.*
- Prof. O. Ohloblyn: *Memoirs on Tyshchenko.*

HISTORICAL SECTION:

- 7 February 1954 —L. Bykovsky: *The Polish Uprising in August-September 1944 (Memoirs of a Participant)*.
—Prof. O. Ohloblyn: *The Scientific Activity of Prof. N. Vasylenko-Polonska*.
- 6 March 1954 —Prof. O. Ohloblyn: *Ukrainian Historical Science under the Soviets in 1930*.
- 27 March 1954 —O. Fedyshyn: *The Carpatho-Ukraine and the Significance of Ukrainian Problems in World Politics on the Eve of World War II*.

The Commission for the Study of Ukrainian History in the Inter-War Period (1918-1939):

- 16 January 1954 —Dr. I. Lysyak-Rudnytsky: *New Research on the History of the Social-Revolutionaries, "Borotbisty"*.
- 13 February 1954 —T. Bulba-Borovets: *Research on Sources of Ukrainian Insurgent Movement during World War II*.
- 27 March 1954 —Prof. I. Krylov: *Educational System in the Twenties and Thirties in the Ukraine*.
- 1 May 1954 —B. Holub: *Collectivization of the Village Economy in light of Statistical Documents dealing with the Insurance of Private Property*.
- 22 May 1954 —Mrs. H. Kovalenko: *Memoirs on the Repression of the Ukrainian Writers in 1934 (G. Kosynka, Ye. Pluzhnyk, D. Falkivsky, V. Pidmohylny)*.
- 12 June 1954 —Prof. B. Podolyak: *On the Creative Work of V. Pidmohylny*.

ECONOMICS SECTION:

- 2 January 1954 —Prof. S. Dragomanov: *The Doctrine of European Federalism*.
- 23 January 1954 —Dr. M. Chyrovsky: *The Theory of State Subsidies for Agriculture in the U.S.*
- 8 May 1954 —V. Trembytsky: *The Problem of the Western Frontiers of the Ukraine in relation to Economic Problems*.

BIOLOGICAL SECTION:

- 13 March 1954 —In Detroit, Prof. M. Levytsky: *The Influence of the X-Ray upon the Organisms of Plants.*
—Prof. I. Rozhin made a report on the first meeting of Ukrainian scholars in America.
- 20 March 1954 —In New York, Prof. O. Arkhimovich: *Selection of Sugar Beets in the Ukraine.*
- 29 May 1954 —In New York, Prof. N. Ossadcha-Janata: *The Dictionary of Botanical Nomenclature and Additions to It.*
—K. Furkalovsky: *Information on the Institute of Scientific Language in Kiev in relation to The Terminology Dictionary.*

PEDAGOGICAL SECTION:

- 10 April 1954 —Prof. I. Krylov: *Material on the Question of the Educational Ideals of "S.V.U." in the Twenties.*

FINE ARTS GROUP:

- 28 March 1954 —Prof. D. Horniatkevych: *Plashchanytsya (Winding Sheet) of Jesus Christ in Torino as an Historical Source.*
- 22 May 1954 —Prof. D. Horniatkevych: *The Modern Ukrainian Embroidery of Mrs. L. Horbachevska.* Mrs. Horbachevska demonstrated this work.

THE COMMISSION FOR PRESERVATION OF THE LITERARY HERITAGE OF THE
LATE UKRAINIAN WRITER V. VYNNYCHENKO.

- 29 May 1954 —Dr. S. Ripetsky: *The Ukrainian Question in the Works of V. Vynnychenko Before and During the First World War.*

A NOTE ON transliteration

The following simplified system is used in the transliteration of Ukrainian:

а	—	a	н	—	n
б	—	b	о	—	o
в	—	v	п	—	p
г	—	h	р	—	r
ґ	—	g	с	—	s
д	—	d	т	—	t
е	—	e	у	—	u
є	—	ye	ф	—	f
ж	—	zh	х	—	kh
з	—	z	ц	—	ts
и	—	y	ч	—	ch
і	—	i	ш	—	sh
ї	—	yi	щ	—	shch
н	—	y	ю	—	yu
к	—	k	я	—	ya
л	—	l	ь	—	'
м	—	m			

The spelling of proper names, place names, and special terms generally accepted in English usage will retain that accepted form (e.g. Kiev, Kharkiv, Dnieper, chernozem). Russian and Polish proper names will retain their respective forms (e.g. Trubeckoj, Zaleski), but Ukrainian proper names and place names will keep their Ukrainian form even if occurring in Russian or Polish sources (e.g. Bila Cerkva, not Biala Cerkiew).

In articles on comparative philology the "international" transliteration (see *Annals*, Vol. I, No. 2, 1951, p. 188) will continue to be used.

CONTRIBUTORS

Mykhaylo I. Tuhan-Baranovsky, noted Ukrainian economist famous for his work on business cycles; former head of Social Science Department of the Ukrainian Academy of Sciences; died in 1919.

Volodymyr P. Timoshenko, noted economist, author of many works on economics; now a professor at Stanford University.

Petro Odarchenko, former lecturer at the Institute of Nizhyn and Kursk; now on the staff of the Slavic Department of the Library of Congress.

Petro Birko, former docent at the Agricultural Institute in Kiev; author of works on soil science; now in the U.S.

John S. Reshetar, Jr., author of *The Ukrainian Revolution*; now a member of the faculty of Princeton University.

Ivan L. Rudnytsky, graduate of the Institute of International Affairs in Geneva; now on the staff of the University of Wisconsin.

John V. Sweet, has worked in the field of economic geography; lived in *Zeleny klyn* (section of the Far East populated largely by Ukrainians) for many years; now in the U.S.

