A MEDICAL REVIEW OF SOVIET RUSSIA.*

IV.—CHANGE IN TYPE AND INCIDENCE OF DISEASE.

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PART II.

MODIFICATIONS IN INTERNAL DISEASES.

Factors.—Although the total of diseases increased enormously during the war and famine, some decreased not only relatively but absolutely. The bad conditions acted as therapeutic agents for some derangements, or at least possessed a compensatory value. The etiological factors beginning in 1915 and culminating in 1920-21 were: (1) The psychical strain of the war and revolution—the loss of home, fortune, and friends, and the uncertainty of the future.† (2) The food: (a) starvation, particularly in fats and proteins, and involving all classes; (b) the indigestible and irritating character of the food, such as salt herring during 1918-19, and later mechanical irritants—as oats, millet, and flax; (c) the elimination of all alcoholic beverages until 1922, and the sharp decrease in tea, coffee, and tobacco. (3) The lodgings—the lack of light, warmth, and comfort during the worst years, and the presence of dirt. (4) The physical strain—the necessity for hard manual labour by those not accustomed to it, and the lack of means of locomotion.

It is suggestive therapeutically to see which diseases were affected by these conditions.‡ The following figures are an analysis of about 5,000 cases from the Erisman Hospital, Leningrad.

Adiposity, with which 0.75 per cent. of patients entering the hospital were affected in 1914, decreased to 0.37 per cent. in 1917, and completely disappeared in 1918-21. § Chronic alcoholism fell from 1.5 per cent. of patients in 1914, to 0.75 per cent. in 1916, and in 1919 to 0.001 per cent. Diabetes mellitus was absent entirely during the famine years, and podagra showed a marked decrease. Drug addicts were also absent from the roster in 1920-22.

Circulatory Diseases.—With the exception of nephritis nearly all of these showed a marked increase. Arteriosclerosis and hypertension, cardiac neuroses, angina pectoris, myocarditis, and aortic aneurysm were greatly increased. In 1914 disease of the heart and blood vessels constituted 2.7 per cent. of all dispensary patients; in 1918 4.2 per cent. Anaemia and dyspnoea were almost universal and bradycardia was common. These figures indicate that whatever benefit to cardiac disease might have accrued from the lightening of the diet was more than offset by the terrible mental and physical strain of the life of that time. Nephritis did not change its incidence. Emphysema was slightly increased. Raynaud's disease and chilblains were greatly increased.

* Previous papers on medical and scientific work in Soviet Russia by Dr. Horsley Gantt were published in the BRITISH MEDICAL JOURNAL in 1924: I, A Review of Medical Education in Soviet Russia, vol. i, p. 1055; II, Hospitals and Health Conditions, vol. ii, p. 336; III, Scientific Work, vol. ii, p. 533. The first part of this article on "Change in type and incidence of disease" was published on August 14th last, p. 303.

† Some idea of the strain under which the Russian was living can be gained from a comparison with the men of the relief organizations. They were in Russia for only one or two years, and usually had diplomatic privileges. They were, as a rule, given the best quarters the Soviet Government had; there was no overcrowding, and the clothing and calorie intake were sufficient. But even among them there were several deaths from pneumonia and typhus, a good many contracted malaria, some became insane owing to the extreme nervous strain, and a large number developed neurasthenia.

‡ I am especially indebted to Drs. Lang and M. V. Chernoroussky of the Leningrad Medical Institute, Dr. A. P. Zelheim, and Dr. A. A. Vladimiroff, director of the Institute of Experimental Medicine, for information given me personally regarding disease statistics.

§ A certain professor of medicine who was overweight had unsuccessfully run through the gamut of the various treatments for obesity. During 1917-19 he became thinner than a normal person, and fell to about one-half his former weight. He has, however, now regained his 240 lb.

Gastro-intestinal Diseases.—Chronic constipation almost entirely disappeared owing to the coarse quality of the food. Haemorrhoids decreased. Most of the catarrhal and inflammatory conditions of the gastro-intestinal tract were greatly decreased (gastritis, chronic intestinal catarrh, chronic colitis, appendicitis). From 1914 to 1917 the incidence of appendicitis cases was nearly constant (2.3 per cent.), but in 1918 it dropped to 0.8 per cent. and in 1919 to 0.01 per cent. Diseases of the bile ducts—cholecystitis and cholelithiasis—decreased gradually from 4.7 per cent. in 1914 to 4 per cent. in 1917, and dropped suddenly to 1 per cent. in 1918 and 0.8 per cent. in 1919. The marked decrease in all these conditions suggests the value of starvation in their treatment, as it seems unlikely that the enforced exercise or the irritating nature of the food could have been so efficacious.

No change was noticed in the incidence of pneumonia, cancer, epilepsy, or endocrinal disease. Frequent ecchymoses were seen on the uvula and tongue from the rough food. Acute enteritis became epidemic. Meteorism and flatulence were generally present. But the most notable increase was in peptic ulcer (see above in the section on surgery) and in abdominal ptoses. The latter were present in 1/4 per cent. of all hospital (Erisman) patients in 1914, but the figure rose to 1 per cent. in 1917, 2 per cent. in 1918, and 5.2 per cent. in 1919. This was attributed to the emaciation and to the nervous and physical strain.

NEUROLOGICAL AND PSYCHIATRICAL DISEASES.

A description of nervous and mental diseases falls into two periods—that of war, revolution, and acute famine, which lasted until the end of 1922; and the years since 1922.

The events of the first period increased enormously all functional neuroses and psychical diseases. "The nervous strain of war would naturally be expected to produce insanity, mental disturbance, and neurasthenia," and this statement held true for America and Germany as well as for Russia.¹ Sir Humphry Rolleston, formerly a Surgeon Rear-Admiral of the British Navy, stated, however, that this anticipation had not been fully realized in the British Navy (in 1915), where serious mental troubles occurred in less than 1 per cent., and mild neurasthenia in less than 4 per cent.; this he attributes partly to the absence of alcohol.

A more potent cause in Russia even than the war was the revolution. Ossipov points out that, although actually the revolution lasted a short time, the concomitants (poverty, blockade, and famine) persisted much longer.² The entries for the psychiatric clinic at the Military Medical Academy, Leningrad, were increased not only for the months following the revolutions (that is, in March and December, 1917, the entries were greater than in the preceding and following months), but they were also increased for the years 1918, 1919, and 1920.³ Gorovoi-Shaltan shows that in 1911 1 per cent. of the population of Petrograd suffered from mental diseases; in 1918, 4.2 per cent.; in 1919, 4.7 per cent.; and in 1920, 5 per cent.* The figures for defective and delinquent children mounted to an even greater extent. Judging by the number of cases which entered the asylums, the index of child delinquency in 1910 was 3.6 per cent.; in 1918, 17 per cent.; in 1919, 22 per cent., and in 1920, 27 per cent. In 1920 52 per cent. of these were theft cases, nearly all of which were caused by the extreme hunger of the child.⁵

Neurasthenia.—Besides the increase in the serious psychoses the milder forms, such as neurasthenia, were greatly augmented. It has already been mentioned that some diseases, such as gastric and duodenal ulcer, in which nervous conditions seemed to play a part, were remarkably increased. We may inquire into the change in the type of psychoses which occurred during these troubled years.

Typhus Psychoses.—Many infectious psychoses resulted

* The figure 1.9 per cent. given for 1911 does not represent the total number, because the asylums were able to care for only 58 per cent. of these patients. However, with the dying off of all chronic cases and the decrease of the population after 1917, the hospitals could fully satisfy the needs of the population in this respect.

from the typhus epidemic.* It is worthy of mention that Spirtov, who made a special study of the effect of the typhus on previously existing organic nervous diseases, chiefly general paralysis of the insane, found that in contradiction to the views of Kraepelin and others who have worked with malaria and general paralysis, no change was produced by the typhus toxin in general paralysis except for a slight psychic improvement during the acute stage.*

Famine Psychoses.—The acute shortage of food and other difficult conditions of life caused a temporary psychosis simulating dementia praecox; it cleared up under proper nutrition. Other symptoms resulting from the famine resembled hypothyroidism. Serifimoff states that some starving patients showed symptoms that pointed to an affection of the nucleus ruber or of the corpus striatum.

Asylums.—The psychoses of patients who had been already confined to asylums underwent interesting changes. The following account is taken from communications from Serifimoff and Dobrotvorský. Until 1917 the inmates were sufficiently fed; during 1917 the feeding was sporadic, and in 1918 when the famine began, the patient often received only 800 calories. The shortage in the asylum rations amounted in 1918 and 1919 to 27 per cent. and 45 per cent. respectively of the normal in carbohydrates; 14 per cent. and 16 per cent. of normal in fats; and 23 per cent. and 22 per cent. of normal in proteins. "This resulted in an almost complete dying off of chronic cases in 1918; the mortality, which in pre-war times was 4 per cent., averaged 21.8 per cent. and in some months exceeded 30 per cent." Serifimoff says it exceeded 42 per cent. in some months, and that although the patients were greatly weakened by the shortage of food, nearly all the deaths were directly caused by acute exhaustion. After 1920 the mortality was not nearly so great. The weight of the men decreased by 24.7 per cent., and that of the women by 21.8 per cent. The percentage of recovering cases decreased, and acute cases became chronic. Mental diseases became more frequent among women than among men. An epidemic of theft spread among the patients, extending even to the most intelligent, who entirely lost all ethical control. States of despondency increased at the expense of mania and exaltation, which became rare. Ossipov and Dobrotvorský, who studied the psychoses of the 1905 revolution also, showed that the events of revolution do not develop psychoses *sui generis*, but give a characteristic colouring to existent forms. The patients in their delirium appropriate titles of war commissars, and during the famine those with delirium grandiosum operated with very scanty provisions of food, which seemed large to them on account of the shortage. Money was all forgotten, and only food thought of.

"The usual noises, abuses, and quarrels of the wards ceased; the only moment of animation was that of the distribution of the scanty rations. . . . The whole of the decay, cold, and famine was accepted by the patients as inevitable; life became unusually gloomy even for an asylum; patients took no interest in recreation, and expressed their disapproval of such arrangements during times so hard; they realized that conditions outside were worse, and did not try to escape."†

In the treatment of all these conditions nothing new was evolved. The cranio-facial index was introduced by Shalaboonoff, and is claimed to be more accurate than cranial index as a measurement of intellectuality. Lentz showed that in patients dying from starvation the brain loses 8.23 per cent. protein, 11.48 per cent. lipoids, 5.23 per cent. nitrogen, and 2.25 per cent. phosphorus. The grey substance of the brain loses 9.30 per cent. protein,

8.33 per cent. lipoids, 9.54 per cent. nitrogen, and 2.10 per cent. phosphorus.

Alcoholism.—Of those nervous diseases which decreased during the famine and war, alcoholic psychoses were the most notable. This was due to the prohibition of the sale of alcoholic drinks, which began in 1914 and continued until 1922. Since 1922 the strength of spirituous beverages has been gradually increased, and in September, 1925, the 40 per cent. vodka (the same as in Tsarist times) was reinstated. The amount to be sold* in 1926, as announced by the Government, will be more than that for 1924, but less than in 1913. The price of vodka in 1913 was 70 kopeks (20 pence), and in 1926 it was 3 roubles (7 shillings) per litre. The present higher price tends to restrict its use somewhat. Drunkenness was always notoriously popular in Russia with all classes, and the consumption of strong spirits was said to be greater than in any other country. Formerly the peasant spent practically all his earnings on alcohol, and the popularity of vodka does not seem to have diminished greatly at the present. Alcoholic drinks are especially injurious in Russia because the Russian will hardly drink wine or beer or anything except the strongest vodka obtainable, and that undiluted and often without food. The figures for the decrease in alcoholism have been given above. In 1922 it was stated (Dobrotvorský and others) that no physician anywhere in Russia had seen delirium tremens, which was formerly common, for six or seven years.†

Morphine and Cocaine.—Cocaine and morphine addicts were increased until 1920, when effective prohibitive measures were taken. Aronovitch states that cocaineism was notable especially in the youth, and that he saw cases of perforation of the nasal septum as a result of the constant smelling and the anaesthetization of the mucous membrane.

Suicides.—Suicides became distinctly rarer during the worse years. According to Professor Lang this was on account of the fewer love affairs in the period when the chief concern was only to obtain food to sustain life. They have greatly increased again. This is attributed by Professor Pavlov to the spread of atheism among all classes. (Personal communication.)

Children's Neuroses.—At the sixth Russian Congress of Children's Diseases, held in Moscow in 1925, it was pointed out that all the children of the period 1918-23 showed an unprecedented tendency to neuroses. Though their condition has greatly improved since 1924, one-third of all Russian children, on the authority of Professor Shefgo, are now suffering from some neurotic disturbance. It is noted that neurasthenia begins in much younger children than formerly.

PSYCHIATRY AND THE PRESENT LIFE.

This completes the review of the revolutionary and famine periods and brings me to a consideration of the present. These past years exerted an unquestioned deleterious effect on nervous and mental diseases, which remain definitely increased even now. The effect of the present mode of living in Russia cannot, however, be stated so unequivocally, and only a guarded prophecy as to its influence on neuroses and psychoses in the future generation can be made. But at least some of the factors of the present life that seem to be etiological can be pointed out.

Effects Lasting.—In the first place, the results of the war and revolutionary period will remain for some time. Although the terrible events of these years are now a matter of history, and Russian life has mended itself, their effects are problems of the present Russia. Dobrotvorský says:

"The nervous and psychic tone of the population has suffered, and its restoration to normal will have to take place in future generations. France, with its 'Paris blockade children,' may be mentioned as a parallel. Russia's 'blockade children' are not

* Besides the acute delirium, katatonia, stereotyped movements, and exaltation connected with the acute stage of the fever, several forms of psychoses followed: post-infectious "psychical asthenia" (Giliarovský), which always had a favourable issue, characterized by despondency, emotionality, liability to fatigue and exhaustion, and certain psychical phenomena (atrophy of the skin and muscles, neuralgia, derangements in walk and speech, increased deep reflexes, sometimes paresis or convulsions); depressive mania, which begins as an exaltation state during the fever; schizophrenia; Korsakoff's disease; amentia; pseudo-paralysis. Triumovff concludes that "psychical asthenia," amentia, and Korsakoff's disease are different aspects of the same psychosis, whose form is determined by the constitutional peculiarities of the patient. The symptoms are loss of memory, neuritis, and psychic confusion, which are attributed to the action of the toxin and the derangement of the circulation in the cortex of the brain.

† Apropos of this many Russians have told me that they tried to get put into gaol during the famine in order to get the meagre ration of black bread.

* The manufacture of spirituous liquors is now, as it was in the time of the Tsars, a Government monopoly. In announcing the amount to be manufactured during 1926 the Government is virtually announcing the amount that will be consumed; for it knows that the Russian people will drink all that is available on the market.

† The lack of alcohol favoured the study of dipsomania. Professor Ossipov, from a series of these cases which he had observed before the prohibition of alcohol, concludes that a picture of the attacks coincides with the depressive phase of manic-depressive psychosis, differing from it only by the shorter duration. In so classifying it he agrees with Korsakoff, but differs from Kraepelin, Gaup, Roemer, and others, who considered it a kind of psychic epilepsy.

confined to one city and they] will be a prolonged reproach to the culture of the West, and prove a lasting misfortune to themselves and the State."

Sir William Osler expressed the same thought when he said that the treatment of neurasthenia should begin with the preceding generation. The truth of this statement is borne out by the great increase of nervous diseases and children's neuroses in 1926, and of anthropological changes (see below). Dr. L. Prozorov of the *Narkomzdrav* told me in January, 1926, that he did not think that insanity was any greater now than before the war, because 30 to 50 per cent. of all insane cases died in 1918-20; that now 5 per cent. of the insane cases were in institutions, against 10 per cent. in 1914; that the number of psycho-neuroses had greatly risen since the war.

Changes in Method of Living.—It behoves us now to inquire into the changes that have taken place in the method of living in Russia, and how these may affect psychiatric and neurological diseases. At the outset it can be stated that at the present time, neglecting the famine and war years, the life of the peasant, who constitutes 85 per cent. of the population, has not changed much economically from what it was formerly, though it shows signs of improving; that the life of the industrial classes—a very small percentage—has improved; the life of the middle classes is somewhat worse, though gradually improving; that almost all of the extreme changes (financial, social, etc.) have been suffered by a small class, the intelligentsia and aristocrats, who make up less than 5 per cent. of the total, and that large numbers of these are either abroad or have died. Likewise most of the great reversals in life have taken place in the large cities, which contain a small proportion of the total population of all Russia.

Recreations.—Much has been written about the sodden, grey, and colourless life of present Russia. This is certainly one of the most remarkable features of the cities as one enters the Union of Soviet Republics from the Western world. After living among the Russian people for some time, however, I have found that this is more apparent than real, and that it is caused chiefly by the lack of the expenditures of a moneyed and leisured class—a relatively small group—and that the mass of the people, especially the lower strata, still have about the same amount, or even more, of pleasures and recreation than they had formerly.

Fear.—A parallel statement might be made of the terrorism and the fear of the secret police (formerly the "Cheka," now the "G.P.U."). It exists as a potent factor for undermining the nervous equilibrium but for relatively few, and with the masses there is less fear of authority than there was under the Tsar. I was told by an inspector of workers' schools that many of the pupils in those schools had never even heard of the "G.P.U." There is now probably more licence, or personal freedom of a certain kind, or freedom from convention, as one chooses to call it, with the exception of political limitations on freedom of speech, than formerly, and also than in a good many other countries.

Simplifications.—Russian life is simplified by the lack of money and of nearly all forms of machinery found in civilized countries except telephones, tramways, and moving pictures.* America, the country where machines are most common, is also the country where neurasthenia has been exceedingly widespread; and there may be some connexion between the two. A simplification in Russian life has recently taken place through the removal of social pretensions and artificialities, which may have a compensatory value in the cultured classes—who have suffered most—where it is chiefly operative.

Education.—Perhaps some methods in the present system of education will exert the greatest influence for good or bad on the nervous constitution of the future generation. Certainly many valuable things are being taught the boys and girls now about personal hygiene and sanitation and physical culture that were neglected under the former régimes, and many more people are being educated than formerly. These facts are mentioned in other papers of

* As one of the Soviet ideals is an age of mechanics and machinery, this condition will probably not remain when they have money to carry out their ideals.

this series. The effects of some of the Marxian principles in the present education are not so clearly beneficial, however, from the standpoint of psychiatry. The new freedom, licence, and responsibility given to youth is even more extreme than the conditions in the United States, and in Russia it has come about overnight, while in America it has been a slow development. The effects of this lack of restraint in the youth, of the official and pedagogical warfare against not only the orthodox moral codes but against all forms of spiritual beliefs, of the rapid spread of atheism among the young over the whole country, of the instillation of class hatred, and of a gross materialism, remain to be seen when the generation in which they are taking root reaches maturity. It can be said in favour of the brutal frankness of the present materialism that it has had the good effect of removing the superstitions and fantasies which abounded in old Russia. The moral life in Russia seems to be on a plane that would delight the Freudians. On the other hand, we have the testimony of the eminent physiologist I. P. Pavlov, an opponent of Freudism, who stated in a public lecture that from the physiological point of view the lack of moral restraint taught the youth in Russia is building up a nation of neurotics.*

Other characteristics of the Russian life, such as unemployment, etc., will not be discussed here as they are too variable and seem to be temporary.

DISEASES OF CHILDREN.

For the general conditions of child life that maintained until 1923 the reader is referred to Dr. L. H. Guest's article "Conditions of child life," in the *BRITISH MEDICAL JOURNAL* of October 20th, 1923 (p. 730). Dr. Guest has described adequately the collection of children into "children's homes" during the period of Communism, the general dangers which have beset child life in Soviet Russia, some of the present problems before the Government in dealing with children, and lines along which the Soviet Department of Public Health is making progress in this field.

Infectious Diseases.

Most children were immune to typhus and relapsing fever. There was no antagonism noted, however, between the ordinary diseases of childhood and these fevers. Both the morbidity and mortality of measles were strikingly increased during 1919 and 1920. The mortality for this disease in the hospitals of Leningrad was then 30 to 50 per cent., and this agrees with reports from the Volga regions giving a mortality of 40 per cent. (Beeuwkes). The high death rate was thought to be due to the increased susceptibility resulting from the cold and damp and absence of sufficient clothing. By 1922 the frequency and mortality had nearly returned to normal. Scarletina and diphtheria showed no increase until 1922; there was an increase in the complications (30 per cent. of nephritis with scarlatina instead of the normal 15 per cent., and 50 per cent. of laryngeal diphtheria). The general mortality of all children of Leningrad was given officially by the *gubzdrav* (public health department) as 27 per cent. for 1922. The latest figures for the whole of Russia are:

TABLE I.—All Russia: Acute Infectious Diseases.

	1921.	1922.	1923.	1924.
Scarlatina ...	381,913 (26)	75,731 (7.7)	115,681 (9)	201,236 (15)
Measles ...	467,601 (32)	132,889 (14)	124,271 (10)	327,912 (24)
Diphtheria ...	459,461 (31)	40,165 (4)	52,369 (4)	65,620 (5)
Pertussis ...	440,915 (30)	102,348 (11)	193,33 (18)	102,007 (14)

The figures in parentheses indicate the rate per 10,000 people. The table is taken from *Vestnik Sovremennoy Meditsiny*, June, 1925, No. 6, p. 17 (I. A. D. Breitner).

* See London *Times*, May 5th, 1924: "Professor Pavlov stated that the whole of the Russian nation was suffering from an absence of real restraint which induced tendencies to succumb to fantastic suggestions. Neurotic affections had greatly increased recently caused by the systematic undermining of the instinct of ownership and of the religious instinct. He stated that it was impossible to allow children absolute freedom from restraint during the educational period, as they would be unable to develop for themselves the power to resist emotional impulses, without which human beings become subject to hysteria and other psychoses on the slightest irritation."

An examination of 2,200 supposedly healthy children by the doctors of the American Relief Administration revealed the following illnesses:

TABLE II.—Results of Examination of 2,200 Children supposed to be Healthy.

Disease.	Percentage of Children Affected.		Disease.	Percentage of Children Affected.	
	Age 3-7.	Age 7-14.		Age 3-7.	Age 7-14.
Lymphadenitis ...	83.0	40.0	Eczema ...	6.2	7.0
Anaemia ...	70.0	68.0	Scabies ...	3.0	6.0
Rachitis ...	58.5	10.0	Cardiac neurosis	3.0	6.0
Scrofula ...	26.0	11.0	Scorbutus ...	1.0	2.0
Chronic bronchitis	13.0	15.0	Otitis media ...	4.8	4.0
Tuberculosis (all forms)	3.0	14.0	Furunculosis ...	0.5	2.5

The incidence and progressive decrease in mortality of scurvy in the hospitals of Leningrad is given as follows (the figures in parentheses show the mortality): In 1918 there were 752 cases (14 per cent.); in 1919, 839 (9 per cent.); in 1920, 2,065 (5 per cent.); in 1921, 1,301 (4 per cent.); and in 1922, 513 (4½ per cent.). Scurvy and rickets increased greatly in Germany also during and after the war. In Leningrad 80.4 per cent. of the cases of rickets occurred in males.

Veneral Disease.

In 1923 educators as well as doctors remarked on the great increase in venereal disease in children. The official organ of the Communist party stated in 1925:

"There has been a remarkable increase in juvenile gonorrhoea in the recent past. Thus in the Metchnikoff Hospital all eighty beds in the skin clinic are filled with children with gonorrhoea, and thirty-five more such cases have just been refused admission on account of lack of space. According to the chief doctor of the hospital there was never before so large a number of children with gonorrhoea. . . . Most of them are young children and come from the children's homes." (*Krasnaya Gazeta*, Leningrad, October 17th, 1925, No. 253, p. 3.)

Pirquet System of Feeding.

Our experience in the selection of the 80,000 children which we were feeding in the Leningrad district may be of value to those interested in nutrition. The system devised by Dr. von Pirquet, and used by the American Relief Administration in feeding children in Central Europe, had to be modified in its application to Russian children. The "pelidisi" was introduced as a simple method of determining the state of nutrition of the child. It is an arbitrary number based on a mathematical formula—the relation between the cubic root of the tenfold weight and the sitting height. Below 92 was taken to indicate severe malnutrition, and above 99 as good nutrition. To determine the accuracy of this system we made medical examinations and physical measurements in 2,200 children in Leningrad, taking 100 boys and 100 girls at each year of age from 2 to 13 years inclusive. These children were supposed to be without serious physical ailments, suffering only from the shortage of food.* We found that 53.3 per cent. of these children were in urgent need of supplementary feeding—36 per cent. being classified as weak and 17.3 per cent. as exhausted. We compared the children with poor nutrition with an equal number of good nutrition (taking 100 boys and 100 girls of each age). Below are our results, as tabulated by Dr. A. Pospelova, a pediatrician of Leningrad, who had charge of this work for the A.R.A.

Most of the poor nutrition was found in the younger children, and in an equal number of boys and girls. From the ages of 11 to 13 there were more girls than boys in a state of poor nutrition. At the age of 12 there was a cessation in development of the child—of increase in height and weight—more marked in the girls than in the boys by an average difference of 5.7 kilograms. The cessa-

* Classification of the children was based largely on the amount of subcutaneous fat, the tone and tension of the tissues, the development of the muscular system, and the colouring of the skin and mucous membranes ("sacratama" of von Pirquet).

tion of growth acted as a conserving agent, and although the children at 12 had stopped growing, we found as many at the age of 12 in a state of good nutrition as at 11. The relation between the circumference of the chest and half the height of the child was also found to differ more from the normal in girls than in boys.

Instead of accepting a single "pelidisi" for children of all ages as had been formerly recommended, we found that a lower "pelidisi" than the following represents malnutrition at the given ages: 97 for children 3 and 4 years old; 96 for children of 5 and 6; 95 for children of 7 and 8; 94 for children of 9 and 10; 93 for age 11; 92 for 12 and 13. "Pelidisi lower than 91 always means malnutrition, and the younger the child the greater the malnutrition; pelidisi higher than 98 always means good nutrition, and the older the child the better the nutrition which is indicated by this number."

The "pelidisi" system of von Pirquet used intelligently is a simple and easy method of classifying children; used mechanically it may be very misleading. Corrections are necessary not only as to age and sex (girls at 12 and 13 have a greater sitting height than boys of those ages), but also as to nationality, as shown in Russia by the difference between Russians and Tartars.

Infantile Mortality.

As a result of the efforts of the Public Health Department to educate mothers, and of its social welfare work, infantile mortality has been markedly reduced in Russia during the past year or two, and is even well below the pre-war level. For example, in 1914 it was 26.5 per cent., and in 1924 only 18 per cent. (Geness).

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- ¹ Rolleston, Sir H.: *Practitioner*, January, 1916. ² Curschmann, H.: *Muench. med. Woch.*, November 23rd, 1923. ³ Ossipov: *Priroda*, Leningrad, Nos. 10-12, 1921 (Russian). ⁴ Gorovoi-Shaltan: *Mental Diseases in the Population of Petrograd, Psychiatry and Neurology*, I, 1922 (Russian). ⁵ Aronovitch: *Child Delinquency and Defectiveness in Petrograd for 1919 and 1920, Psychiatry and Neurology*, I, 1922 (Russian). ⁶ Spiriov: *Changes in Psychoses under the Influence of Typhus, Scientific Medicine*, No. 9, 1922 (Russian).

(To be continued.)

WELLCOME HISTORICAL MEDICAL MUSEUM.

REOPENING CEREMONY.

THE Wellcome Historical Medical Museum (54A, Wigmore Street, London), which has been closed for some months for cleaning and rearrangement, was reopened on the evening of October 14th. Unfortunately, Mr. Henry S. Wellcome, the founder, could not be present; he was detained on a humanitarian mission in America. In his absence, Sir Humphry Rolleston, Bt., and Dr. John D. Comrie acted as hosts, assisted by Dr. C. M. Wenyon and Dr. S. H. Daukes, of the Wellcome Bureau of Scientific Research, and Mr. L. W. G. Malcolm, conservator of the museum.

Sir HUMPHRY ROLLESTON remarked that the study of medical history was, somewhat paradoxically, a modern development, and its expansion in this country had been largely due to four men—Dr. J. F. Payne, Sir William Osler, Sir Clifford Allbutt, and especially Sir Norman Moore. This research museum showed the advances which had been brought about through the ages in the various departments of medicine, and the evolution of discoveries and inventions of medical interest; it showed also certain of the retrogressive changes, particularly those which characterized the healing art in Europe during the Dark Ages. London was fortunate in having such an institution, and the whole medical profession was under a debt to Mr. Wellcome for his generosity in making available this wealth of historical lore. It would be difficult to describe how much this museum and library, so quietly amassed, would mean to the medicine of the future.

The Functions of a Museum.

Sir ARTHUR KEITH followed with an address the general theme of which was that museum-making and history-writing were the same thing. It was Pitt-Rivers, he said, the founder of the anthropological collection of the museum of Oxford, who demonstrated how reliable human history could be built up, bit by bit, in the shelves and show-cases of a museum, and it was he who made the spade an