

able, by directors, managers and other executives;

11. To cultivate some of the journalist's sense of the story in research work;
12. And throughout their courses, the technical schools should teach the fundamentals of the sciences so thoroughly that the graduate can think for himself and will not be at his wits' ends when a problem in his future work does not fall within the limits of the formulae specifically taught or the books available.

Research has no end. It must be kept up perpetually. The technical schools must be soundly convinced of this fact and through their graduates, must impart it to the industries, lest unprogressiveness rob the community of the benefit of new knowledge.

Technical schools should convey, also, to their research students some conception of the exigencies and financial necessities of business and instill into them appreciation of the importance and difficulty of the financial problems and patience for the apparent slowness with which industry and business sometimes put into effect the results of research. The scientific man seeks the confidence and appreciation of the business man and he should reciprocate.

The greatest service of all which the technical schools and the universities can do for industry and for the community is to infuse into all workers from unskilled labor to highest executives that appreciation for truth and that conviction of the futility of deceit which are forced upon the scientist and the technologist, by the very nature of their work. Neither science, nor technology, nor industry, nor business, can permanently flourish on deception or on a narrow and selfish conception of profit.

ALFRED D. FLINN

THE PRESENT STATUS OF UNIVERSITY MEN IN RUSSIA

For a long time after coming into power the soviet government of Russia maintained a seriously discouraging attitude toward the

university faculties and the Russian professional and scientific men in general—the "intelligentsia." But this attitude is now modified and still modifying. Along with the other changes in attitude and action characteristic of the recent months of soviet government, changes very marked in relation to business and general economic matters, changes have also been made in the way of ameliorating the situation of the university men.

The salaries, paid in paper roubles of constantly depreciating value—they are now worth about 75,000 to the dollar!—were very low, becoming, indeed, as the value of the rouble lowered, simply derisory. But more important, in Russia, than any salary paid in money—unless it get into millions of roubles a month—is the "paiok" (I spell it as pronounced), or food ration, that is the essential part of the reward for services to the government. As is familiarly known, the soviet government established several grades of ration according to various categories into which the people could be roughly divided. The working man got the largest or best ration; the university man nearly the lowest.

In my recent (September-October) visit to Russia as special representative of the American Relief Administration, I learned something at first hand of the changing situation of the university and professional men of the country. I was not in Petrograd, but saw a number of faculty men in the universities of Moscow, Kazan, and Samara. Samara is one of the several new universities (?) set up by the soviet government. It has four faculties, medicine, law, agriculture and "workers." The "workers' faculty" offers elementary classes for the sons and daughters of working men and peasants to fit them for matriculation in the professional departments of the university. The president of Samara University, himself a specialist, as he said, in the Italian Renaissance, intimated that his institution was meeting many difficulties, the principal one being that of finance—a difficulty not unknown outside of soviet Russia. However, while we talked, students were

going in and out of his office apparently on the usual errands connected with registration, etc.

The University of Moscow expected to open in September but did not, and had not yet opened when I left Moscow early in October. I learned that the salaries and food ration of the Moscow men had been notably increased but did not learn details as I did at Kazan.

The salaries and "paiok" of the professors in the University of Kazan had been so meagre that not a man was able to live on them, and every professor was meeting his family's need for food by doing something besides regular university work. The means for keeping himself and family alive were various, but in almost all cases they included the successive sacrificing of personal and household belongings. One professor of biology told me that he made shoes, and that his wife baked little cakes and sold them in the city market. He had sold all of his own and his wife's simple jewels and trinkets and one of his two microscopes. Yet this man, who has not been able to see any books or papers published later than 1914, has struggled along with his special researches and has actually achieved two pieces of experimental work on vitamins which seem to me, with my little knowledge of the subject, to contribute certain definite new knowledge concerning these interesting substances.

But, beginning in August, there had been a material increase in salary and in food ration. The monthly food ration had been put, in August, on the following basis: dark (mostly rye) flour, 30 lb.; dried peas, 5 lb.; cereal grits, 15 lb.; sweets (not cane or beet sugar), 2 1/2 lbs.; tobacco, 3/4 lb.; butter, 6 lbs.; meat, 15 lbs.; fish, 5 lbs.; tea 1/4 lb.; white flour, 5 lbs. The items from dark flour to tobacco, inclusive, had been received; the rest of them, promised but not received. About 250 professors and instructors receive this ration. The university buildings are so cold that some of the men do all their work, except lecturing, in their homes. About 5,000 students had registered, but only about

10 per cent. of them were in actual attendance. The largest departments in point of student enrollment were medicine and science. My friend, the professor of biology, had never before ridden in an automobile until he rode with me in our relief car. About 20 men of the Kazan faculty have died in the last two years.

VERNON KELLOGG

NATIONAL RESEARCH COUNCIL

SCIENTIFIC EVENTS

GRANTS FOR RESEARCH OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE Committee on Grants of the association will hold its annual meeting during Christmas week, 1921, and will probably have at its disposal about four thousand dollars for grants in support of investigation in the different sciences. The committee especially invites suggestions from scientific men as to suitable places for small grants. Suggestions or applications should be sent before December 15 to the member of the committee in whose field the work lies, or to the secretary. The present personnel of the committee is Robert M. Yerkes, chairman; Henry Crew, C. J. Herrick, A. B. Lamb, George T. Moore, G. H. Parker, Joel Stebbins, David White.

JOEL STEBBINS,

Secretary of the Committee on Grants
URBANA, ILLINOIS

MAP OF THE NORTH PACIFIC OCEAN

A NEW base map of the North Pacific Ocean on the transverse polyconic projection has been prepared by W. E. Johnson, cartographer, of the U. S. Coast and Geodetic Survey of the Department of Commerce, and is now available for distribution. It is published in clear form and convenient size (dimensions 14 by 41 inches) for desk use.

This map is designed primarily as a base on which statistical data of various special kinds may be shown. In consequence of this purpose only features of major importance are shown on it and these features are emphasized to an extent not possible on a map which