exercise, and it affords those capable of playing on the first teams a unique and invaluable chance to develop and display those extraordinary qualities of heart and mind required in their contests.

If an entirely unscholarly individual is hired to go to college so that the team may profit by his athletic prowess (as may still happen, I believe, in some sections of the country), if the coach pays the opposing captain to throw the game, if, worst of all, the student body in general is found prodigally to be wasting its money, time, interest and enthusiasm on sports to the exclusion of learning—then we have a black picture, indeed, but still indubitably a case for action by the administration of the institution concerned.

To enter this field, already under the anxious scrutiny and stern hand of those whose duty it is to guide such activities, would not only be a work of misguided supererogation, diverting the energy of the association from its proper aims, but it would, and quite properly, tend to alienate from science and scientists those students who, strange as it may seem to some honest souls, have at one and the same time a liking for sports, shared or watched, and for the study of nature. Let the association mind its own affairs, advancing the cause of science and ameliorating the conditions under which scientists labor, and recruits of promise will not be wanting.

H. M. PARSHLEY

SMITH COLLEGE

WAR EXPLOSIVES MISTAKEN FOR MINERALS

AT the close of the war, large quantities of explosives were distributed to the various states to be used mainly in bridge and road building. This material was frequently piled up in boxes in out of the way places where the containers sometimes became broken open and the explosives scattered some distance from the original source. The writer has personally observed one such case twenty-five miles south of Tucson, Arizona, where several tons of T. N. T. were kept for several weeks without guard or protection of any kind. Pieces of T. N. T. were picked up two or three hundred feet from the pile of boxes. As is well known, this substance turns yellow to brown on exposure to light and the stray pieces referred to above had so altered on the surface as to resemble rusty scrap iron. The pieces were of peculiar shape, some being cylindrical, evidently having been removed from unused shells. On breaking open some of the pieces with a hammer the material showed a fibrous radiating appearance not unlike some minerals. It does not seem strange, then, that occasionally these explosives should actually be mistaken for minerals. Moreover, in the case of more soluble substances such as picric acid, the material might become so mingled with sand or pieces of rock as to greatly increase the resemblance.

During the past year four distinct cases have been brought to the writer's attention where these explosives have presumably been mistaken for minerals. It has even led some men scientifically trained to seriously question whether these compounds might not actually occur as natural products. The first case was that of some earthy material stained with picric acid in such a manner as to almost exactly resemble carnotite. The material was received at the Arizona Bureau of Mines and the sender affirmed most emphatically that the substance was of natural origin. The bitter taste and the dyeing of a small piece of filter paper and comparing with a piece dyed with known picric acid was sufficient to identify the material.

The second case was that of a sample of whitish material, also received from a small town in Arizona by the Bureau of Mines. It was mingled with a very small amount of foreign matter and on testing was found to be T. N. T. (trinitrotoluene). In this case, on further correspondence with the sender, it was admitted that T. N. T. had been used the previous year near the locality concerned, and that some of the men interested in having the material tested had suggested that it might be an explosive. Had this information been included in the first letter a considerable amount of labor would have been saved in the identification.

The other two cases of widely different localities (New Mexico and Colorado) were called to my attention by Dr. S. C. Lind, of

the U. S. Bureau of Mines. In both of these cases the senders were, as stated by Dr. Lind, "not willing to accept the view" that the picric acid had been introduced accidentally.

The abundance of these explosives after the war, and the lavish way in which the government has distributed them for public service, together with the careless manner they have been handled in the road camps, is sufficient to explain the occasional finding of explosives under conditions which cause them to resemble minerals. It is not believed that these substances could be developed by natural agencies.

F. N. GUILD

UNIVERSITY OF ARIZONA,
TUCSON, ARIZONA

PARTIAL LIST OF BIOLOGICAL INSTITUTES AND BIOLOGISTS DOING EXPERIMENTAL WORK IN RUSSIA AT THE PRESENT TIME

THE list below was compiled by the undersigned during a trip to Moscow and Petrograd in August, 1922, taken for the purpose of investigating the biological sciences and scientists there and of reestablishing communication with them. Unfortunately, there was not sufficient time to make the list nearly complete. At all of these institutes research is being engaged in actively and articles are being published, but the work is much hampered on account of the lack of scientific literature from other countries, particularly from America. One of the greatest services that could be done to the Russian scientists at present is to help them to gain knowledge of the work which is being done in the west, and the list is therefore published to inform American scientific men of the addresses to which their reprints, and, wherever possible, the back numbers of their periodicals may be sent. Owing to the rather high centralization of Russian science, articles directed to these institutes will reach a large number of the people engaged in a given line of research. The articles may be mailed directly to addresses given, since postal communication has been reestablished, but they are to be addressed to the institute rather than to the person as such, in order to be sure that the Russians will not have to pay an import duty. Of course, the name of the person who would be most interested may be designated, even though the article is not sent to him personally.

H. J. MULLER

THE UNIVERSITY OF TEXAS

Bureau of Applied Botany, Professor N. I. Vavilov, director, and numerous others, Morskaya 44, Petrograd.

Scientific Institute of Ministry of Public Health, Professor Terasevitch, general director. This general organization comprises the following 8 institutes:

(1) Biochemical Institute, Professor A. Bach, director, and numerous associates, Vorontsovo Polye 8, Moscow.

(2) Institute of Control of Vaccines (including also station in country), Professor Terasevitch, director, and associates, Sivtsev Vrazhek 41, Moscow.

(3) Institute of Experimental Biology (including also 2 stations in country), Professor N. K. Koltzof, director, Sivtsev Vrazhek 41, Moscow; Professor S. N. Skadovsky, head of Hydrobiology Station; Professor V. N. Lebedof, head of Genetics Station; Dr. A. S. Serebrovsky (genetics); Dr. I. G. Kogan (sex hormones); Dr. D. D. Romashof (genetics and biometry); Dr. P. I. Shivago (histology); Drs. A. J. and S. S. Tchetverikov (entomology), and numerous others; address of all: Sivtsev Vrazhek 41, Moscow.

(4) Institute of Physiology of Nutrition, Professor Tchaternikof, director, and associates, Sivtsev Vrazhek 41, Moscow.

(5) Institute of Microbiology, Professor V. Barikin, director, Miss N. Kritch and other associates, Kudrinskaya-Ploshadj 8, Moscow.

(6) Institute of Sanitary Epidemiology, Professor Diatropof, director, and associates, Kudrinskaya-Ploshadj 8, Moscow.

(7) Institute of Tropical Medicine, Professor E. Martsinovsky, director, Kudrinskaya-Ploshadj 8, Moscow; Dr. Sh. Moshkovsky (chemotherapy, cultures, chemistry of histological staining, etc.); Professor I. Smorodintsev (enzymology); Dr. A. Adova (enzymology); Professor K. Skriabin (helminthology); Dr. P. Popov (helminthology and entomology); Dr. N. Shakov (malaria cultures, etc.); Dr. W. Povshina and Dr. A. Shtchurenkova (trichomonas, etc.); Dr. A. Metielkin (protozoan parasites); address of all: Kudrinskaya-Ploshadj 8, Moscow.

(8) Institute of Tuberculosis, Professor Varabiof, director, and associates, Kudrinskaya-Ploshadj 8, Moscow.

Institute of Biophysics (and physics), Professor P. P. Lazaref, director, and numerous associates, 3rd Miuska Ulitsa, Moscow.