without saying that neither will the physicians of this Nation, nor the teachers, nor, for that matter, the plumbers or the bartenders. Nevertheless, all of these were embroiled in the recent carnage, and the physicists were in the thick of the fight. Significantly enough, Dr. Hull's paper is preceded by a description of a gigantic naval research institution (p. 237) in which some 2,000 civilians, most of them scientists, will be sharpening the modern swords of war. When the bombs fall, scientists too, as well as their children, will die. As citizens, they cannot afford to assume a holier-than-thou attitude.

Dr. Hull also takes occasion to assert that the rulers of the country are "the so-called labor leaders, who, when the situation is right, make war on the rest of the Nation and who, at times of national emergency, hold up the Nation and demand its money or its life."

Now, anyone who, in the realm of physics, made a generalization so unwarranted and so oversimplified would be dismissed as one who had failed to assimilate the most elementary principles of scientific analysis. It cannot be repeated too often that the obvious need today is as rigid thinking in sociology as that which has been so fruitful in the physical and biological sciences.

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On the Question of Russian Scientists

Why the presumptuous agitation over the status of scientists in Russia—more specifically over the fate of a small number of individuals and more particularly Vavilov? The latest installment is that of P. J. Olson (*Science*, 1946, 103, 656).

If scrutinized, our own record regarding political and social undesirables is far from savory. We have had abundant evidence that scientific endeavor is flourishing in Russia. For a recent report see the articles by Hastings and Shimkin (*Science*, 1946, 103, 605, 637) and also that by Langmuir (*Chem. eng. News*, 1946, 24, 759). The treatment received by the latter in the helium liquifying laboratory of Kapitza compares rather to our discomfiture with that accorded by Bridgman, of Harvard, to visiting Soviet scientists (*Science*, 1939, 89, 179). Can it be that the Russians are more tolerant?

It is conceivable that foreign scientists contemplating migration to Russia could with propriety make detailed inquiries at to what their status there would be. The rest of us can well leave to the Russians their struggle to devise a tolerable existence. And so doing does not preclude friendly intercourse.

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Book Reviews

Electron and nuclear counters—theory and use. **A. Korff. New York: D. Van Nostrand, 1946. Pp. vii + 212. (Illustrated.) $3.00.**

This very timely treatise on the theory of the discharge mechanism and on the operation of various types of electron nuclear counters will prove a valuable reference book to all scientists engaged in pure or applied nuclear research and a necessary text for students preparing for research in these fields. Its importance is enhanced by current interest in the utilization of atomic energy in medical and biological problems, as well as in industrial and military developments.

During the last two decades counters have been developed as ionization chambers, proportional counters, and Geiger counters. But in general their behavior has been only vaguely understood and has proved perplexing to the majority of workers, partly because no single text has heretofore existed giving a complete and systematically presented theory of their operation. Consequently, Prof. Korff's masterly presentation of practically all phases of counter operation promises to be the handbook which will clarify the operational problems of counter technicians.

The author introduces his subject through a summary of the development of counters, a description of current uses, definitions of terms, and a general description of the phenomena involved. The unique behavior of counters in the low-voltage region, in the proportional region, and in the Geiger region is clearly defined, and the types of counters used in these separate regions are treated according to their distinct characteristics.

The characteristics of counters currently employed for measuring the intensity of radiations—X-rays, gamma rays, and cosmic rays, for counting the charged particles and neutrons, both fast and slow, which are emitted in atomic transmutations and disintegrations, for the detection of radioactive deposits by the geophysicist or radioactive tracers by the biophysicist, or for the measurement of dosage in radium therapy are discussed in the text with ample detail. Included are characteristic curves for the various counters, discussions of self-quenching and non-self-quenching counters with explanations of pulse size and effects of negative ions, as well as directions for the construction of counters and of the auxiliary electronic circuits.

Particularly valuable are the numerous circuit diagrams and the discussion of the vacuum tubes employed for quenching, coincidence, scaling, and recording cir-