music in hospitals as well as occupational therapy and various forms of exercise and sports events: "Every well-organized hospital should have various devices for the occupation and amusement of patients, for example, newspapers, books, chess, cards, lotto, billiards." He urged the institution of a program of clinical and basic research on psychosomatic factors in therapy.

Another student of Botkin, V. P. Obraztsov (1849–1920) called attention to the close relationship between the disturbances of visceral and somatic functions, problems of referred pain, the neurasthenic heart, and the role of autosuggestion in cardiovascular disease.

This book represents an important contribution to the history of Russian medical practice and philosophy. It contains a great deal of material entirely unfamiliar to medical scientists in the Western world.

The book also demonstrates the lack of communication and of cross-fertilization of ideas between Russian and Western (particularly English-American) medical and biological laboratories and clinics and the resultant mutual ignorance and lack of appreciation of each other's achievements. Osler knew not of Botkin, nor Botkin of Osler; both would undoubtedly have profited from acquaintance with each other's ideas.

This lack of mutual understanding still persists and is evident in the over-all approach of Borodulin. In discussing the development by Pavlov, Bykov, Speranskii, and others of the Botkin-Sechenov concepts of cortical integration and of the living organism as a homeostatic unit, he seems to be unaware of the important contributions in this field by British and American physiologists. For example, the appearance of Sherrington's *The Integrative Action of the Nervous System* in 1906 is not mentioned. Nor is there any indication of familiarity with Fulton and Keller's demonstration of the principle of encephalization in their elegant publication *The Sign of Babinski—a Study of the Evolution of Cortical Dominance in Primates,* or with Fulton's extensive lobotomy studies in relation to behavioral problems in primates.

Studies related to the organism as a unit have occupied the center of attention of a number of investigators for many years and in many lands. Jacques Loeb analyzed some of these problems brilliantly in *The Comparative Physiology of the Brain and Comparative Psychology* (1902) and in his book *The Organism as a Whole* (1916). J. B. S. Haldane wrote in 1922: "The only way of real advance in biology lies in taking as our starting point, not the separated parts of an organism and its environment, but the whole organism in its actual relation to environment, and defining the parts and activities in this whole in terms implying their existing relationships to the other parts and activities."

The effects of emotions on body processes have been the subject of investigation and discussion by many scientists, from William Beaumont's *Experiments and Observations on the Gastric Juice and the Physiology of Digestion* (1833) to A. J. Carlson's *The Control of Hunger in Health and Disease* (1916), W. B. Cannon's *Bodily Changes in Pain, Hunger, Fear and Rage* (1920), and the excellent current studies conducted by Stewart Wolf and Harold Wolff and Hans Selye's extensive investigations on stress. As a matter of fact, observations on psychosomatic effects go back to antiquity. Maimonides, the famous Hebrew physician-philosopher of the 12th century, emphasized the importance of emotions in health and disease (letter to the Sultan Saladin). The appreciation and further development of scientific principles can best be achieved by maintaining a broad historical and geographic perspective.

This lack of communication is not, however, one-sided. British and American physiologists failed to appreciate and benefit from the contributions of Russian physiologists. As is pointed out so succinctly by Fulton in his *Frontal Lobotomy and Affective Behavior*: "Although the Russian School had a clear awareness of the importance of cortical representation of many visceral functions, neurologists and neurophysiologists in general were extraordinarily slow to appreciate the broad significance of these earlier disclosures."

The elucidation of the role of psychologic factors in the development of disease and the development of an integrative approach to medical research and practice could best be achieved not by periodic mutual "sniping" but by consistent attempts at closer communication and a development of mutual appreciation between Russian and Western medical scientists and practitioners.

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Cours de Physique Générale. Electricité. A l'usage de l'enseignement superieur scientifique et technique. G. Goudet. Masson, Paris, ed. 6, 1956. 899 pp. Illus. Cloth, F. 5100; paper, F. 4500.

This large and well-appointed book is one of a series of advanced textbooks in general physics for university students. In addition to the material usually found in American textbooks for graduate students, it contains a considerable amount of descriptive material dealing with electric measurements, instruments, and machinery written in a more elementary style. Beginning with a brief introductory section on vector calculus and the mathematical treatment of periodic functions, it leads the reader through the classical theory of electrostatics, direct currents, magnetostatics, and quasi-stationary electromagnetic phenomena to the general formulation of Maxwell's equations and the theory of electromagnetic waves. In a final section, the author discusses the properties of charged particles, x-rays, atomic and molecular structure, elementary quantum mechanics, electric and magnetic properties of solids, and electron tubes and semiconducting devices.

The classical electromagnetic theory is developed in the conventional manner. The theorems are precisely enunciated, and the derivations are detailed enough to permit independent study. Many representative problems are carried to a complete solution, and Maxwell's equations are illustrated by many applications. On the other hand and in accordance with European practice, student exercises are not included. The mks system of units is used throughout.

Although the book does not seem to present new approaches to the study of its field, it is clear, comprehensive, and up to date. The typographic arrangement is excellent and makes it easy to follow the derivations.

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Parasites and Parasitism. Thomas W. M. Cameron. Methuen, London; Wiley, New York, 1956. 322 pp. $6.75.

This book departs from the point of view and emphasis found in most present-day textbooks of parasitology. It widens the concept of parasitism to include, in addition to parasitic animals, bacteria, fungi, spirochetes, viruses, and rickettsiae and includes among the animal parasites the parasitic annelids, crustaceans, mollusks, and vertebrates not usually included in parasitological textbooks. Moreover, *parasitism* is used in the wider sense of including the whole gamut of relationships from extreme pathogenicity to symbiosis. Parasitism is viewed as a biological phenomenon with examples chosen from fields widely separated systematically. Thus there is little emphasis upon the medical and veterinary aspects of parasitism, except by virtue of the fact that the parasites involved in producing disease in man and animals are often better known than the forms of little or no economic importance.

Although the discussion of parasitism