

**Nauka Polska :**

jej Potrzeby, Organizacja i Rozwój. (Science and Letters in Poland: their Needs, Organization and Progress.) Tom (Vol.) 22. Pp. ix+433. (Warszawa: Kasy Imienia Mianowskiego, 1937.)

VOL. 22 of "Nauka Polska", an annual publication edited by Prof. S. Michalski and issued by the Mianowski Institute for promoting Science and Letters in Poland, is devoted largely to a series of papers on the influence of science upon human culture and progress. Among several noteworthy contributions is one by Prof. S. Ossowski, who deals with the influence of the personal opinions of the man of science on researches in the domain of the social sciences. He goes on to examine the effect that personal political and social convictions can have upon the course of a research worker's investigations in such subjects as sociology, political economy and anthropology, that is, in sciences directly contributing to progress in social life.

The influence of physics upon the development of modern civilization is the theme of a contribution from Prof. S. Szczeniowski, who endeavours to show how the theories of pure physics and the exact sciences have moulded opinion with regard to modern conceptions of the universe. Another interesting memoir in this issue of "Nauka Polska" is that by Mme. Danilewicz, who wishes to direct attention to the scientific work conducted between 1805 and 1831 at the former lycée of Krzemieniec in south-east Poland (Volhynia). The concerted attempt of an enthusiastic group of specialists in physics, chemistry, mineralogy and botany to create a local interest in the flora and natural resources of this district made a most promising beginning, but was afterwards suppressed for political reasons.

In the notes referring to scientific events in Poland and abroad there is a brief account of the British Association meeting at Blackpool, and reference is also made to the activities of the Research Co-ordination Committee.

**PEP (Political and Economic Planning)**

Report on International Trade: a Survey of Problems affecting the Expansion of International Trade, with Proposals for the Development of British Commercial Policy and Export Mechanism. Pp. vii+302. (London: Political and Economic Planning, 1937.) Paper boards, 8s. 6d. net; cloth, 12s. 6d. net.

THE group of industrialists, distributors, local government officers, university teachers and others who have produced this comprehensive monograph claim allegiance to no political party and are concerned solely with the problems of social and economic reconstruction. It is a lengthy report and contains a mass of statistical and other matter, bearing on the mechanism, finance and politics of international trade. The writers conclude that the idea of sweeping away international trade barriers is impracticable and is being replaced by organized exchange between nations, which, however, should be more constructively planned. The report discusses at length such constructive measures by taking into account not merely economic needs but also politics, psycho-

logy, transfer difficulties and other relevant factors. Within the policy of the State there should be scope for the initiative of individual traders, especially in co-operative steps. International trade will probably become permanently a smaller proportion of total trade, and will certainly not return to past conditions; but on new and constructive lines there should be a measure of revival. Finally, it may be noted that the report examines frankly the role played in present trade by the economics of war.

**Physiology in Health and Disease**

By Prof. Carl J. Wiggers. Second edition, thoroughly revised. Pp. 1124. (London: Henry Kimpton, 1937.) 42s. net.

THE second edition of Prof. Wiggers' book follows the first after an interval of only two years. Special emphasis has been laid on subjects of clinical importance and the book is really a general textbook of clinical science. Chapters are devoted to such subjects as oedema, sleep, acidosis, peripheral vascular disorders, blood-pressure, valvular lesions, fever and diet. The section dealing with the circulation is particularly detailed.

The book covers much the same ground as Samson Wright's "Applied Physiology"; but it is about 35 per cent larger. No one man could speak with the authority of detailed knowledge over so wide a field, and the judgments of this book sometimes appear superficial. Its main value lies in the fact that it contains a very large number of references to original work and to detailed reviews. It should be useful to students and to those who seek access to literature dealing with subjects outside their own speciality. Prof. Wiggers is a physiologist, and his book will probably be more admired by physiologists than by clinicians.

**The Physics of Electron Tubes**

By Dr. L. R. Koller. (International Series in Physics.) Second edition. Pp. xvii+234. (New York and London: McGraw-Hill Book Co., Inc., 1937.) 18s.

THE first (1933) edition of this book has already been favourably reviewed in NATURE (133, 968; 1934). The present second edition has been slightly enlarged, especially by the addition of short treatments of such topics as electron optics, secondary emission multipliers, "ignitrons" and positive ion emission.

The title of the book would be more appropriately "Introduction to the Physics of Electronic Devices", as it deals within its relatively short space not only with 'electron' tubes, that is, hard valves and photo-cells, but also includes gas-filled relays and even two chapters on photo-conductivity and photo-voltaic cells. The treatment is clear, bringing out the essential points. Intricate mathematics has been avoided by stating in such cases finished results; however, Richardson and Schottky's equation and the  $3/2$  power law have been derived in a special appendix.

Very useful for the beginner is a collection of problems (with solutions) and with the aid of a good list of references added to each chapter, he will be able to find his way to more detailed study of the subject.

A. B.