

the contrast between the facilities which are nowadays enjoyed in the pursuit of science and those which were available fifty years ago.

THE LABORATORIES.

There are three principal laboratories, a conference room and library, and an office, together with a number of subsidiary laboratories—including an optical laboratory, a photographic dark room, and a thermostat room—as well as rooms containing service plant, and store rooms. The services comprise high- and low-pressure gas, coal gas (as distinct from the mixture of coal gas and carburetted water-gas), compressed air, vacuum, water, steam, and electric power at 220 and 2–15 volts d.c. A special workshop for making experimental apparatus will be included in the second half of the building, to be erected later. No. 1 laboratory (2700 sq. ft.) is to be used exclusively for general chemical research; ample space has been left for movable tables, and there is an adjacent balance-room. No. 2 laboratory, reserved for technical and semi-large scale work, is being kept as free as possible from fixtures. No. 3 laboratory will be used partly for research and partly for the chemical control of the operations carried out at the Fulham works. The products of low-temperature carbonisation tests at Richmond will also be examined at Fulham.

For the occasion of the visit there had been arranged a comprehensive display, with explanatory notes, of apparatus and methods which are employed in the research and control work. Although it is possible to mention only a few examples, it was everywhere evident that much intelligent thought and care had been devoted to the exhibition. In No. 1 laboratory were to be seen apparatus for micro-combustion and gas analysis, the determination of the vapour pressure of naphthalene, the thermal decomposition of methane and ethane, the sampling of gases, pyrometry, the analysis of coke and pitch, and the cracking of gas oil. In No. 2 laboratory were demonstrated the recovery of benzol from coal gas by activated carbon, the combustibility of coke, and refractory materials. No. 3 laboratory was devoted to a representation of the dehydration of gas and its influence on corrosion, the analysis and density of gas, and the tests appropriate to the analysis of gas oil, benzol, coal, coke, tar, ammonia, sulphur, and naphthalene. The basement contained various types of calorimeter, optical apparatus, and plant. The visitors were also conducted over the experimental gas-producing plant, where high-temperature horizontal retorts were in operation, together with condensers, purifiers, sampling apparatus, speedometers, calorimeters, etc., an experimental tar still, and a Salerno low-temperature retort.

University and Educational Intelligence.

LONDON.—Dr. Alexander Robertson has been appointed as from Sept. 1 to the University readership in chemistry tenable at East London College. From 1922 until 1924 he was Carnegie research scholar at the University of Glasgow, and was awarded a Ramsay Memorial Fellowship but resigned in order to accept a Rockefeller International Science Fellowship for study at the Universities of Manchester and of Graz. Since 1926 he has been assistant lecturer in chemistry at the University of Manchester. He has published papers in the *Journal of the Chemical Society* on sabinol, pyrylium salts of anthocyanidin type, the synthesis of anthocyanins, and the syntheses of glucosides.

The title of professor of morbid anatomy in the University has been conferred on Dr. G. W. de P. Nicholson, in respect of the part-time post held by

him at Guy's Hospital Medical School. The title of professor of bacteriology in the University has been conferred on Dr. Alexander Fleming in respect of the part-time post held by him at St. Mary's Hospital Medical School. In 1919 and 1923 Dr. Fleming was Hunterian professor, and in 1928 Arris and Gale lecturer of the Royal College of Surgeons; since 1920 he has also been lecturer in bacteriology in the Medical School of St. Mary's Hospital.

In view of Mr. S. A. Courtauld's munificent gifts for the Institute of Biochemistry and the Medical School of the Middlesex Hospital, the title of the University chair of biochemistry tenable there has been changed to "Courtauld Chair of Biochemistry in the University of London."

The following doctorates have been conferred: D.Sc. in chemistry on Mr. S. Guhasarkar (Imperial College—Royal College of Science), for a thesis entitled "The Influence of Groups and Associated Rings on the Stability of certain Heterocyclic Ring Systems"; D.Sc. in geology on Mr. M. R. Sahni (Imperial College—Royal College of Science), for a thesis entitled "Studies in Jurassic and Cretaceous Terebratulids (Morphological, Evolutionary, and Zonal)"; D.Sc. in mathematics on Mr. Theodor Estermann (University College), for a thesis entitled "(1) On the Representations of a Number as the Sum of Three Products; (2) On Certain Functions represented by Dirichlet Series; (3) On a Problem of Analytic Continuation"; D.Sc. (Engineering) on Mr. John Hollingworth (Imperial College—City and Guilds College), for a thesis entitled "The Propagation of Radio Waves"; D.Sc. (Engineering) on Mr. G. A. Hankins, for a thesis entitled "A. A study of the Methods used in Determining the Hardness of Metals. B. Experiments on the Behaviour of Metals under Alternating and Repeated Stresses," and other papers.

MANCHESTER.—The Council has accepted the resignation of Dr. Alex. Robertson, assistant lecturer in chemistry, on his appointment as reader in chemistry in the East London College, University of London; and also of Dr. P. W. Clutterbuck, demonstrator of chemical physiology, on his election to a Beit memorial fellowship for medical research.

Miss Eleanor M. Jackson has been appointed demonstrator in chemical physiology.

THE trustees of the Busk Studentship in Aeronautics, founded in memory of Edward Teshmaker Busk, who lost his life in 1914 whilst flying an experimental aeroplane, have awarded the studentship for the year 1928–29 to Mr. J. J. Green, of the Royal College of Science, London.

THE Aitchison Memorial Scholarship of the value of £36, open to all comers and tenable for two years in the full-time day course in technical optics at the Northampton Polytechnic Institute (London), is being offered. The examination will be held on Oct. 1 and 2. Full particulars can be obtained from the honorary secretary and treasurer, Mr. Henry Purser, 42 Gray's Inn Road, London, W.C.1.

THE ninth series of "Methods and Problems of Medical Education" has been issued by the Rockefeller Foundation, N.Y. It deals with institutes of legal medicine, and descriptions are given of the principal continental institutes, such as those of Paris, Berlin, Vienna, Cracow, Rome, and Lisbon. In striking contrast to the fine buildings and spacious accommodation commonly provided abroad for the subject, Great Britain is singularly deficient in this respect, and is represented in the series by the two relatively small departments provided at Edinburgh and Glasgow.