

(2) that the seven journals for the period from January, 1925, to June, 1929, give a correct view of the relative use of technical periodicals in general by American electrical engineering students, faculty and research workers; (3) that the seven periodicals used should be weighted equally.

The results obtained in this survey have cost no little effort upon the part of those interested in graduate work at this institution. Other institutions doubtless will appreciate such a list of periodicals in checking over their holdings. It is with this in mind that this paper is presented for publication.

SCIENTIFIC EVENTS

THE RAYLEIGH COLLECTION AT THE SOUTH KENSINGTON MUSEUM¹

AMONG recent additions to the Science Museum, South Kensington, is a most interesting collection of apparatus used by the late Lord Rayleigh in the course of his scientific research. On the occasion of the unfortunate fire, last year, at Lord Rayleigh's home at Terling, Essex, a considerable quantity of apparatus was destroyed, but the historical apparatus was fortunately undamaged and the bulk of it has been generously given by the present Lord Rayleigh to the Science Museum, where it should prove a continual source of interest and inspiration to professional and amateur scientific workers alike. It is scarcely necessary to remind readers of *Nature* of the extent and importance of the late Lord Rayleigh's contributions to science. During a period of more than fifty years he published no fewer than 446 papers, every one of which made a distinct addition to our knowledge of the subject and was characterized by that lucidity and elegance of expression for which its author was renowned.

On viewing this collection, one is struck very forcibly—as were visitors to the laboratory at Terling—by the extraordinary simplicity of the bulk of the apparatus. The ability to attain results of the highest accuracy and importance by the aid of odd bits of wood, glass tubing, wire and sealing-wax was undoubtedly bound up with Rayleigh's unerring instinct in discriminating between the essential and the non-essential. It is doubtless true that some branches of modern physical research can not profitably be pursued without the use of expensive apparatus. At the same time, many workers who are apt to grow despondent after a perusal of the price-lists of the scientific instrument makers should find a tonic in the Rayleigh collection, which also serves as a salutary reminder that the man is more important than his tools.

The present collection is thoroughly representative of the vast field which Lord Rayleigh covered, and is exhibited in six cases, two dealing with acoustics, while the remainder come under the headings of optics, magnetism and electricity, argon, and miscellaneous. It is impossible in a short notice to deal adequately with the whole of the exhibits, but a few representa-

tive examples may perhaps be mentioned. The acoustics section includes apparatus used in experiments on reflection and interference and on the intensity of aerial vibrations; also the apparatus by means of which it was demonstrated that our lateral perception of the direction of a sound depends upon the phase-difference at the two ears. One of the most important exhibits in the optical section is the apparatus used for the determination of the constant of the magnetic rotation of light in carbon disulphide, while there is also a reminder that, so early as the year 1902, Rayleigh made an attempt to detect motion through the ether. Prominent in the electrical section will be found apparatus for determining the laws of resistance of periodic currents. The argon collection gives an excellent idea of the course taken in that classical series of investigations extending from 1892 to 1895 in the latter part of which Sir William Ramsay collaborated, while under "Miscellaneous" the chief exhibits deal with capillarity, fluid motion, and cognate problems. Every piece of apparatus has been provided with a full explanatory label giving references to the original source and to the "Collected Scientific Papers," and public lectures on the exhibits will be given from time to time.

THE NEW SCIENTIFIC LABORATORIES AT THE UNIVERSITY OF CHICAGO

Two new science buildings, each believed to be the finest of its kind in the United States, were opened recently at the University of Chicago for the first time to accommodate summer quarter classes. The recently completed buildings are the Bernard A. Eckhart Hall of Mathematics, Mathematical Astronomy and Physics and the new Botanical Research Laboratory.

Seventeen classes in mathematics and astronomy moved into the Eckhart building, the erection of which was made possible by a gift of \$710,000 from Mr. Bernard A. Eckhart. Adjoining the older Ryerson Physical Laboratory on the east, the new structure rises to four floors along University Avenue on the Main Quadrangle.

Eckhart Hall, the work of Charles Z. Klauder, Philadelphia architect, is said to be one of the finest

¹ From *Nature*.