

### K. W. Feuerbach and his Geometrical Research

ONE of the most important theorems of the geometry of the triangle that was developed during the nineteenth century is the one which shows that the nine-point circle of a triangle is tangent to the inscribed and to each of the three escribed circles of the triangle. The theorem was discovered and first proved by Karl Wilhelm Feuerbach, a little-known mathematician who led a short and tempestuous life; an account of his life and researches has been given by Prof. Laura Guggenbuhl (*Scientific Monthly*, 81, No. 2; 1955). Feuerbach's proof was purely algebraic, being modelled upon the proof in an article by Euler in 1765; but while it is in principle simple enough, the detail of the working is exceedingly laborious, and in succeeding years many people, fascinated by the difficulties in Feuerbach's proof, seemed to find it a pleasant challenge to produce a different and simpler one. Feuerbach, the third son of a family of eleven, was born in Jena in 1800, his father being a successful lawyer. Shortly after the publication of his book, Feuerbach, only twenty-two years old and without previous teaching experience, was appointed professor of mathematics at the Gymnasium at Erlangen. Soon afterwards, he studied for a time at the University of Freiburg under Karl Buzengeiger, who is credited with having had a great influence upon the young mathematician. On returning to Erlangen, however, he was involved in political troubles and was arrested. At his trial he was acquitted; but he spent more than a year in prison awaiting trial, and during this time he commenced some further mathematical research. This was later completed, and was the subject of a review by Cantor in the *Sitzungsberichte der Heidelberg Akademie der Wissenschaften*; in a final summary, Cantor says that Feuerbach in this work proved himself to be an independent co-discoverer with Möbius of the theory of the homogeneous coordinates of a point in space. At the time of his imprisonment, Feuerbach was already showing signs of mental derangement, and by 1828 this was so serious that he had to retire from teaching. He died six years later when not yet thirty-four.

### Mycological Collections in Latin America

THE attention of mycologists is directed to the Second General Catalogue of Latin American Mycological Collections, published under the auspices of the Unesco Centre for Scientific Co-operation (Centro de Cooperación Científica para América Latina de la U.N.E.S.C.O., Bulevar Artigas 1320, Casilla de Correos 859, Montevideo, Uruguay; 1955). Indications are given of all the fungi in the collection and of the institutions or laboratories where they are maintained. Full information on the origin, biological properties and characteristics of the cultures, biographical citations, etc., can be obtained on application to the Centro de Cooperación.

### The United States National Museum

THE annual report of the United States National Museum for 1955 records the opening of the First Ladies Hall on May 24, 1955. The eight display units in the Hall are designed to represent different rooms in the White House, Washington, from the earliest period to the present time and contain architectural details acquired from the House during its recent reconstruction. They give the public an opportunity to view the dresses in surroundings similar to those in

which they were originally worn. Each room contains three to six dresses representing a time of about twenty years. The changing styles in White House decoration shown in these rooms are based on available drawings and photographs together with written descriptions.

### Royal Society Depository of Unpublished Mathematical Tables

THE following is a list of accessions to the Royal Society's depository of unpublished mathematical tables since the publication of the last list in *Nature* (175, 712; 1955): (52) Étude de  $3n^2 + 1$ ,  $3n^4 + 1$ ,  $3n^8 + 1$  (A. Ferrier); (53) Table of  $\text{Bi}'(+x)$ , for  $x = 0(0.01)2$  and  $\text{Bi}'(-x)$ , for  $x = 0(0.01)10$  (K. I. McKenzie and M. Rothman); (54) Table of a function related to the error function (H. J. Gawlik); (55) Étude de  $5n^2 - 1$ ,  $5n^4 - 1$  (A. Ferrier); (56) The self-consistent field for  $\text{Zr}^{4+}$ : supplementary tables (S. L. Altmann); (57) Tables for the regular reflexion of plane shocks in air (C. K. Thornhill and Katharine M. Stocks); (58) Tables of quantities associated with oblique shocks in air for which the flow deflexion is a maximum or behind which the flow is sonic (C. K. Thornhill and Katharine M. Stocks); (59) Tables of Sievert's integral (S. Johnston); (60) Solutions of the Poisson-Boltzmann equation for two equal spherical colloidal particles (N. E. Hoskin); (61) Tables of Fresnel integrals (J. R. Airey). Further information about these tables can be obtained from the Assistant Secretary, Royal Society, Burlington House, London, W.1.

### International Union of Forest Research Organizations: Congress at Oxford

THE twelfth Congress of the International Union of Forest Research Organizations is to be held in Oxford during July 7-14 and will be followed by organized tours in various parts of Britain. It is expected that nearly two hundred delegates from twenty-five countries, mainly European but including Canada, Australia, New Zealand, the United States and Japan, will take part. The previous Congress was held in Italy in 1953. The Union was founded as long ago as 1890, and its aims include the establishment of close personal relations between forest research workers of all countries, particularly between specialists working in the same field of activity. The meetings at Oxford will be under the following main headings: general forest influences; forest production; establishment and maintenance of forests; forest economics—operational efficiency; and forest products. The Congress is to be opened at Regent's Park College, Oxford, on July 7, by the Minister of Agriculture, Mr. Heathcoat Amory, and during the week-end there will be local tours for delegates. In the ensuing week, meetings of the Congress will be held at the Imperial Forestry Institute and there will be a closing plenary session on July 14 in Regent's Park College. On July 12 excursions will be available to the Forestry Commission's Research Station at Alice Holt Lodge, near Farnham, Surrey; the Forest Products Research Laboratory at Princes Risborough; and the Rothamsted Experimental Station, Harpenden. Following the Congress, there will be seven separate tours—three in England, three in Scotland and one in Wales—and the programme will include visits to Forestry Commission areas and a number of private estates known for their outstanding forestry.