Until longitudinal studies of this kind have been made, the school counselor and mental hygiene "expert" will be working in the dark. At present they can only guess at the prognostic significance of the personality traits they discover, whether by the use of tests or by means of clinical observations. The psychologist stands aghast at the self-assurance with which the professional school counselors in America diagnose the personality faults of little children and at the boldness with which they undertake the delicate task of adjustment. That some counselors do much good, by the mere application of common sense, will of course be admitted; that others do real harm is hardly less certain. The student of genius who is familiar with the motivating influences that have their origin in quirks of childhood personality shudders to think what the result would have been if school counselors had had a chance to "adjust" the personalities of some of the budding geniuses of history. One can imagine them, freed of all their peculiarities and complexes, adjusting to the world as it was and becoming undistinguishable from the human herd.

Some day, it is to be hoped, the psychologist will know how and when to adjust personalities; at present he knows very little about it and the professional school counselor knows even less.

OBITUARY

SIR HORACE LAMB[1]

IN the death of Sir Horace Lamb, which occurred on December 3, at the age of 85, mathematical science loses one of its brightest ornaments and Cambridge society one of its most venerable figures. During his long life he systematized several branches of applied mathematics, in addition to making to them individual contributions of the highest importance. Hydrodynamics was the most vigorous offspring of his fertile brain, but tidal theory and seismology owe not a little to him, as also does aeronautics, to which his years of retirement were largely devoted. The primary aim of science in Lamb's view was to explore the facts of Nature, to ascertain their mutual relations, and to arrange them so far as possible in a consistent and intelligible whole. The material effects came later, if at all, and often by a very indirect path. The mathematician's task, to his mind, had an esthetic character. He took delight in the comparison of a well-ordered piece of algebraic analysis with a musical composition, and bemoaned the passing of the scientific memoir, which in the hands of a Lagrange or a Poisson had the completeness and austerity of a great work of art.

Lamb was born at Stockport on November 27, 1849. From Stockport Grammar School he passed on to Owens College, Manchester. The college was already gathering to itself a brilliant body of teachers. The professor of mathematics, Barker, had the singular habit of teaching quaternions before Cartesian geometry, but this was perhaps no disadvantage with his abler pupils, such as Lamb and J. J. Thomson. Like Thomson, his junior by seven years, Lamb went up to Trinity College, Cambridge, and there became second Wrangler and second Smith's prizeman. He was elected a fellow of his college and quickly began those hydrodynamical investigations on which his fame so securely rests.

[1] Abridged from an article in the London *Times* [December 4].

This particular line of research fitted in well with the general revision of the special sciences then being conducted under the stimulus of Thomson and Tait's "Natural Philosophy." But in 1875, on his marriage to Miss Elizabeth Foot, of Dublin, Lamb accepted an invitation to become professor of mathematics at Adelaide University. He took advantage of the change to set his ideas in order, and in 1878 his first book appeared under the title, "A Treatise on the Mathematical Theory of the Motion of Fluids." His treatment of vortex and cyclic motion, with their electromagnetic analogues, the discontinuous jets of Helmholtz and Kirchhoff, the motion of perforated solids through a liquid, and the effects of viscosity was bold and original. The skill with which he handled the complicated mathematics, his lucidity, and his powers of systematization won for him an immediate and complete success. From 1881 to 1884 he published a brilliant series of memoirs dealing with the application of harmonic analysis to vibrational problems.

Obviously his recall to England could not be long delayed. In 1884 he was elected a fellow of the Royal Society, and in the following year he returned to Manchester to succeed his old teacher as professor of mathematics. In 1889–90 he published a number of valuable papers on the elastic deformation of plates and shells. To his administrative abilities no less than to his teaching the young university—it had received its charter in 1880—owed more than can be expressed. He was president of the Manchester Literary and Philosophical Society, one of the most important of the provincial academies. He retired from his chair in 1920, though still displaying the vigor of many a man 20 years his junior, and went to live at Cambridge.

Lamb's teaching years were marked by a succession of books, of which his "Hydrodynamics," published in 1895, has become the standard treatise on the sub-

ject. The sixth revision, in 1933, although the work of a man of 83 and not wholly brought into line with the latest ideas, shows no signs of being superseded. His "Elementary Course of Infinitesimal Calculus" went into a third edition in 1919, which was significant of the new and more logical treatment of the exponential function on the basis of its fundamental property. His "Dynamical Theory of Sound" appeared in 1910, his "Statics" in 1912, and his "Dynamics" in 1914. The series was completed by his "Higher Mechanics" in 1920.

To Lamb, who so ardently taught that science was its own reward, there fell more than the usual share of honors. In the case of the Royal Society, honors were accompanied by duties, for he served on its council for three periods of two years and was twice vice-president. He was awarded the society's Royal Medal in 1902 and its highest honor, the Copley Medal, in 1924. Seven universities honored him with their doctorates. He was a foreign member of the Reale Accademia dei Lincei and Trinity College, Cambridge, made him an honorary fellow. He was president of the London Mathematical Society from 1902 to 1904, and De Morgan medallist in 1911. As a sectional president of the British Association in 1904, he devoted his address ostensibly to the place of Stokes in mathematical physics, but really covered the whole evolution of the science; and in presiding over the whole association at Southampton in 1925 he dealt specifically with the progress of geophysics. His Rouse Ball lecture at Cambridge in 1924 gave him another opportunity to dilate refreshingly on the evolution and character of his science. He was knighted in 1931.

RECENT DEATHS

DR. ROLAND BURRAGE DIXON, professor of anthropology at Harvard University since 1916, died on December 20. He was fifty-nine years old.

DR. MILO SMITH KETCHUM, dean emeritus of the College of Engineering at the University of Illinois and director of the Engineering Experimental Station, died on December 19, in his sixty-third year.

SCIENTIFIC EVENTS

SYMPOSIA ON DISTILLATION AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

THE first of a series of symposia under the auspices of the division of industrial and engineering chemistry of the American Chemical Society will be held at the Massachusetts Institute of Technology on December 28 and 29, for discussion of the chemical engineering features of distillation.

The meeting will bring to Cambridge the leading authorities from all parts of the country to discuss the latest developments in this field.

Distillation is an operation that is becoming of increasing importance in a wide variety of industries for separating liquids into fractions of desired physical and chemical properties. The commercial production of solvents, gasoline, kerosene, fuel oils, alcohol, glycerine, compressed oxygen and many other valuable materials in daily use has been made possible by the effective design of distillation apparatus.

The men responsible for these developments are scattered throughout the country in industry and in academic pursuits, and the forthcoming meeting will enable them to exchange information and ideas and advance their general knowledge by informal round table discussion. Some of the papers to be presented will deal with the general theory of distillation and rectification design, others will describe its application to industry and its importance to the practical operating man, while the remainder will give detailed experimental data on the separation of complicated mixtures containing three components. The authors have been selected from the petroleum industry, the chemical industry, the manufacturers of distillation equipment and the teaching profession. Brooklyn Polytechnic Institute, Columbia University, Cornell University, Massachusetts Institute of Technology, University of Illinois, University of Michigan and Yale University will all be represented on the program by members of their faculties.

The meetings of the symposium will be held in the Eastman Research Laboratories of Physics and Chemistry at the Massachusetts Institute of Technology, under the chairmanship of Professor F. W. Adams. The first session on Friday afternoon, December 28, will be devoted to a technical session followed by a round table discussion of design methods. The balance of the technical program will be presented on Saturday morning, December 29, starting at 9 A. M. An informal dinner meeting has been arranged for Friday evening when Professor Warren K. Lewis will address the gathering. A group luncheon on Saturday will complete the social side of the program.

A large attendance is expected at the meeting, not only from New England, but from all over the country. By having the symposium during the Christmas holiday period it will be possible for students as well as others interested in distillation to meet the leaders in this field.

DEDICATION OF THE WASHINGTON, NORTH CAROLINA, FIELD MUSEUM

THE new building of the Washington Field Museum, Washington, North Carolina, as reported in