

Apart from the discretionary power of the Attorney General, which can be used to permit the entry of visitors but not immigrants, there are provisions that permit the entry, either as visitors or as immigrants, of persons who would normally be excluded because of their past political affiliations. Such persons need not be excluded if their affiliation was involuntary, or occurred when the alien was under 16 years of age, was by operation of law, or for purposes of obtaining employment, food rations, or other essentials of living. An alien who has, for at least five years prior to his application for a visa, actively opposed the doctrine, program, principles, and ideology of the organization in question may be admitted if there is a finding by both the consular officer and the Attorney General that admission would be in the public interest. Each such admission must also be reported to the Congress by the Attorney General.

Administration of these provisions is placed in the hands of the consular officers so far as the issuance of visas is concerned, and of the Attorney General, who acts through the Immigration and Naturalization Service of the Department of Justice, so far as admission to this country through ports of entry is concerned. Before granting a visa, the consular officer must satisfy himself that the applicant does not come within any of the classes of excluded aliens discussed above. Exercise of discretion to admit otherwise inadmissible aliens requires action by both the Attorney General and the Secretary of State or a consular officer. The issuance of a visa by a consular officer ("an endorsement made on a passport by the proper authority denoting that it has been examined and that

the bearer is permitted to proceed . . .," *Merriam-Webster*) does not guarantee passage through the port of entry in the continental United States, which is under the jurisdiction of the Attorney General. The law places an independent responsibility on the immigration officer at the port of entry to determine the admissibility of all persons coming into the country.

In recent months, several suggestions have been made in the press, in scientific publications, in testimony before the President's Commission on Immigration and Naturalization, and in the Commission's report published early in January⁶ for the revision of the laws governing the admission of visiting scientists. Among these proposals was the setting up of special procedures for the speedy processing of applications by scientists for admission as visitors. More fundamental is the suggestion that a distinction be made between the substantive and administrative requirements for temporary admission and the requirements for admission for permanent residence. In line with this proposed distinction, it has been suggested that the criterion requiring exclusion of an alien *visitor* might rationally become present sympathetic association with a foreign subversive organization rather than, as now, affiliation at any time in the past with such an organization. An additional proposal has been the development of a definitive listing of subversive organizations, the character of which as such has been publicly identified by an authoritative body or officer after due investigation.

⁶ *Whom We Shall Welcome*, Report of the President's Commission on Immigration and Naturalization. Washington, D. C.: GPO (1953).

Leigh Page: 1884–1952

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ON SEPTEMBER 14, 1952, death claimed Leigh Page, professor of mathematical physics at Yale University, a renowned scholar and a great teacher, who left his mark on the creative realm of American mathematical physics.

Leigh Page was born October 13, 1884, at South Orange, New Jersey. He was the son of Edward Day Page, merchant, and Cornelia Lee Page. He had his early schooling in New York City, but thereafter his whole life was associated with Yale University, where he obtained his B.S. degree in 1904 and his Ph.D. in 1913.

Starting his teaching as an assistant in physics in 1910, he progressed until, in 1922, he was appointed full professor of mathematical physics—a chair first

held by Willard Gibbs—and he held this position until his death.

Page published sixty or seventy scientific papers and was the author—in some cases a co-author—of six books, of which the best known are probably his *Introduction to Electrodynamics* and his *Introduction to Theoretical Physics*. Both books have had a profound influence in the development of many of America's leading mathematical physicists.

His research interests were primarily in the field of relativity and electrodynamics, with ramifications into quantum theory, optics, and allied fields. One of the achievements that stood at the top, or near the top, of those on which he himself placed greatest weight was his derivation of the equations of electrodynamics on the basis of a postulate having to do with

the emission of particles from charged bodies. The particles are supposed to be emitted with the velocity of light in the direction of the lines of force of each individual point charge, as observed in the system of axes in which the point charge is momentarily at rest. It is probable that Page attached no attributes of reality to the particles in question but used them as devices to formulate, through the theory of relativity, the Maxwell-Lorentz system of equations in what appeared to him to be the most elegant form.

Page's writings covered a wide range of problems and were frequently concerned with clarifying and putting into exact form electromagnetic problems that had previously been presented in erroneous guise or in a manner lacking logical continuity.

In the era intervening between the great giants of the last century—Maxwell, Kelvin, Helmholtz—and the present epoch in which theoretical physics has assumed such strange forms, forms quite at variance with the methods of thinking of those who created classical physics, we find a group of theoretical physicists, of whom Leigh Page was an outstanding representative. This group, trained in the philosophy of Victorian physics, was, in its younger days, prepared to strain the bonds of classicism within reasonable limits, with minds attuned to a comprehension of the newer thoughts of the quantum theory, just dawning upon the horizon, so that these physicists were masters in the new domain as, by training, they were masters in the old. In spite of these radical tendencies in their youth, they tended to become conservative with age and to view with a certain sadness the implication that the physics in which they had been brought up could not somehow or other be made to cover the whole realm of nature.

Leigh Page was particularly sensitive to the strife between the new and the old. Fully conscious of the new, he yet felt that it was his duty to trace as far as possible the potentialities of the old for covering the new domain. Much of his time during the last decade of his life was spent in pursuit of this idea, and a great volume of his work remained unpublished and uncompleted at the time of his death.

Naturally, one of the first battles to be fought was the battle against that belief so firmly asserted by the originators of the quantum theory, to the effect that no purely electromagnetic system could be in electrodynamic equilibrium. Page expended much effort and ingenuity in drawing upon the potentialities of classical theory to realize a system in stable electrodynamic equilibrium, with characteristics—in particular, angular momentum characteristics—which he hoped might give meaning to Planck's constant h . In this effort he examined the potentialities for equilibrium of spherical rotational systems and toroidal systems, generalizing the ordinary Lorentzian equations to include magnetic densities and magnetic currents but no overall magnetic charge. With the help of this material and with the electrodynamic force generalized to in-

clude $v \times E$ terms in true mathematical analogy with the $v \times H$ terms, he sought to prove the possibility of the existence of systems that would be in equilibrium in the sense that at each point of the system the total electrodynamic force would be zero. He succeeded in proving the possibility of the existence of such systems, but up to the time of his death his hope of finding the systems and of discovering in their structure a unique or, preferably, a discrete set of possibilities as regards angular momentum in which Planck's constant h would make its natural appearance was not completely realized.

It was his thought to realize radiation as a result of the perturbation of a system of this kind, a perturbation that destroyed its equilibrium. Presumably he expected to be led to various states of equilibrium for the electron with different angular momenta and different energies, so that as a result of such perturbation radiation could be emitted—again supposedly by purely classical processes in the normal process of passing from one state of equilibrium to another.

Leigh Page was a tireless worker who begrudged every interruption that took time from his researches or from the preparation of his lectures, in which he was most conscientious. In spite of this, he was a shrewd businessman. He managed his father's estate with such efficiency that over a period of years he substantially increased its value. Generally reputed to be a man of considerable means, he had the New England abhorrence of waste and lack of thrift but was most generous in large things. He had those qualities that greatly endeared him to his friends and a sense of humor that made him a delightful companion.

In the realm of recreation Page was fond of tennis, mountain climbing, and automobile touring, and he frequently took vacation trips over considerable distances both in America and abroad. His summers were spent at his residence in the White Mountains.

In 1910 Leigh Page married Mary Edith Cholmondeley Thornton at Manitou, Colorado, and thus secured a partner to whose sympathetic understanding he doubtless owed much of his success in life. Mary Page possesses the characteristic of making everyone happy around her. She is a tireless worker and always to be found with half a dozen activities on hand, every one of them concerned with lessening the burdens of others. Leigh Page is survived by his widow, three children—Thornton Leigh, Barbara Helen (now Mrs. W. C. Elmore), and Marjorie (now Mrs. Edmund Piper)—and nine grandchildren.

Page was a member of the Connecticut Academy of Arts and Sciences, a fellow of the American Physical Society, of the American Academy of Arts and Sciences, and of the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. In his death science has lost an outstanding contributor, whose feet were firmly on the ground of logical discipline. His colleagues have lost a dear friend who was a worthy gentleman of the highest type.