(9) The study of the results of hybridization between the most physically diverse of modern races—such as the Negro and the Nordic, or the Mongoloid and the brunet Mediterranean White—has not demonstrated that fertility is decreased, or vitality diminished, by such crossings. The hybrids exhibit a wide range of combinations of features inherited from both parental races, but no degeneracy, provided that both parental stocks are normal. It is probable that racial susceptibilities and immunities to certain diseases are different in hybrids from those obtaining in the parental races, but this subject has been insufficiently studied.

(10) Within each and every race there is great individual variation in physical features and in mental capacity, but no close correlation between physique and mentality has been scientifically demonstrated. Knowledge of human heredity is still far from perfect, and altogether inadequate as a basis for attempts to secure specific combinations of physical and mental features by selective breeding. A scientifically valid program of eugenics, at the present, must be limited to the restriction of breeding among the insane, diseased and criminal, and to the encouragement of reproduction in individual families with sound physiques, good mental endowments and demonstrable social and economic capability.

The scientific method of determining the racial composition of the United States or any other country is to appraise the distribution of type combinations of physical characters in the individual which are known to be hereditary racial features. The sorting of these types is initially made without reference to parentage or national origins of the persons studied. Studies of these physical types in the Old American populations, in the children of immigrants from other countries and in residents of alien birth does not indicate that the racial composition of the United States has been profoundly modified by recent immigrations. Incoming types are virtually identical with those represented in the population resident here for several generations, although the proportions are somewhat modified.

Each racial type runs the gamut from idiots and criminals to geniuses and statesmen. No type produces a majority of individuals from either end of the scale. While there may be specific racial abilities and disabilities, these have not yet been demonstrated. There are no racial monopolies either of human virtues or of vices.

I believe that this nation requires a biological purge if it is to check the growing numbers of the physically inferior, the mentally ineffective and the anti-social. These elements which make for social disintegration are drawn from no one race or ethnic stock. Let each of us, Nordic or Negro, Aryan or Semite, Daughter of the Revolution or Son of St. Patrick, pluck the beam from his own eye, before he attempts to remove the mote from that of his brother. Every tree that bears bad fruit should be cut down and cast into the fire. Whether that tree is an indigenous growth or a transplantation from an alien soil, matters not one whit, so long as it is rotten.

OBITUARY

CHARLES HENRY STANGE

BY the death on April 26, 1936, of Charles Henry Stange, dean of veterinary medicine and professor of veterinary hygiene at Iowa State College, veterinary medicine has lost one of its foremost educators and research directors. He was a native Iowan, born in Cedar County on May 21, 1880, and, while a relatively young man at the time of his death, was recognized as a leader in the field of veterinary medical education.

Only a few months after his graduation from Iowa State College in 1907, he was recalled to accept a position on the veterinary staff. Later he pursued work at the University of Chicago in pathology, which was his field of special interest. In 1909 he was made dean of veterinary medicine at Iowa State College and for twenty-seven years devoted his tremendous energies to problems of educational administration and the development of the oldest state college of veterinary medicine in the United States. His efforts were successful, and upon his death he left as a monument to himself one of the outstanding American colleges of veterinary medicine, together with an affiliated institute for research in animal diseases. The latter, under his direction, has contributed much in recent years to knowledge concerning intestinal and nutritional diseases prevalent in swine and poultry in the Middle West.

Dean Stange's interest in the advancement of professional veterinary medicine was profound, and he recognized that the advancement and recognition were dependent upon the improvement of educational standards in the colleges of veterinary medicine. He spoke and wrote much on the subject, and in 1928 was delegated by the Bureau of Education of the Department of the Interior, Washington, D. C., to conduct a survey of the veterinary colleges of the United States. His report has had much influence upon recent improvement in veterinary educational standards. At the time of his death he was actively engaged as a member of the Committee on Education of the American Veterinary Medical Association in conducting a detailed examination of the veterinary colleges of the United

States and Canada for the purpose of grading and classifying them. Dean Stange was an active worker in various national professional organizations, including the United States Live Stock Sanitary Association and the American Veterinary Medical Association, the latter of which honored him with the presidency in 1924.

Scientist, educator, executive, wise councilor, he will be sorely missed by his colleagues, particularly those at Iowa State College whose purpose it will be to continue building upon the foundations which he has so securely laid in veterinary medical education and research.

H. D. B.

RECENT DEATHS

DR. GEORGE A. HOADLEY, since 1888 until his retirement with the title emeritus in 1914 professor of physics at Swarthmore College, died on May 18 at the age of eighty-seven years.

SAMUEL DICKEN CONNER, research chemist at the Purdue University Agricultural Experiment Station, died on April 19 at the age of sixty-three years.

DR. CHARLES B. GRAVES, retired physician of New London, Conn., and co-author of the "Flora of Connecticut," died on April 24 at the age of seventy-five years.

THE death occurred on May 4 of Dr. Alfred Cardew Dixon, emeritus professor of mathematics at Queen's University, Belfast. He was seventy-one years old.

THE death is announced of Josef Jadassohn, for many years professor of dermatology at the University of Breslau at the age of seventy-two years.

PROFESSOR VLADIMIR G. BOGORAZ, head of the department of ethnography of the University of Leningrad, died on May 12. He was seventy-one years old.

Nature reports the death of L. W. Hinxman, from 1905 to 1919 district geologist in the Geological Survey, Scotland, on April 29, aged eighty-one years, and of Professor D. Morrison, professor of moral philosophy in the University of St. Andrews, who was associated with Professor G. F. Stout in the editorship of *Mind*, on April 8, aged sixty-nine years.

SCIENTIFIC EVENTS

REPORT OF THE BRITISH NATIONAL PHYSICAL LABORATORY

THE report of the British National Physical Laboratory for 1935, published on May 5, is summarized by the London *Times*. The *Times* calls attention to work carried out in the department of physics on the absorption of the radiation from radium by such building materials as brick walls and breeze blocks, the results having direct application in the design of radium departments for hospitals. The department also devoted much time to the study of noise in buildings. In modern flats, it is pointed out, the floor is more important than the walls, because sounds caused by direct impact to the structure are transmitted much more readily than those which have to pass through the air before reaching the structure. The value of a subsidiary floor resting on, and insulated from, the structural floor has been recognized and recent work has been in the direction of improving the design of such floors.

In the tanks of the William Froude laboratory the record number of 73 ships were tested, involving the making of 160 models. Effective improvements were made in 64 of the ships as a result of the tests, and in 13 cases the improvements represented more than 10 per cent. on the fuel consumption and in four cases more than 20 per cent. Research work on small craft was begun in 1934 and has already resulted in a reduction of 30 per cent. in the power required to propel a series of ferry steamers.

In the aerodynamics department recent tests in the compressed air tunnel at the laboratory have proved that the speed of aeroplanes can be considerably increased by insuring that the surface of the wings and other parts is as smooth as possible.

In the electricity department experiments were carried out at the request of the Government of Northern Ireland on the practicability of installing an electric barrage in connection with an important eel fishery. The object is to guide the eels into the part of the river where the traps are installed, by electrifying the water where it is desired to prevent them from passing. These experiments have been extended to more natural surroundings at the Fisheries Experimental Station at Alresford, and it is hoped that full-scale experiments in the eel fisheries of an Irish river will be carried out this year. Experiments in testing colors of electric lights for street lighting were also carried out by the department.

The radio department used for the investigation of atmospherics a base line 300 miles long, one end being at Slough and the other at Leuchars, in Fifeshire. Synchronized automatic drum-recording at each station has been so developed that it is possible to record the results of 30-minutes' observation at 10 yards a second (*i.e.*, 12 miles of track) on a single sheet of paper about one yard long and 4 inches wide. These methods are being used to record the wave-form, intensity and direction of arrival of all the atmospherics occurring in selected intervals of time.