PLANS for using an endowment given to Battle Creek College by Mrs. Mary F. Henderson, of Washington, as the basis for a nation-wide race betterment movement were announced by Dr. John H. Kellogg at the close of the Third Race Betterment Conference at Battle Creek, Mich. Mrs. Henderson has given to the institution an endowment of $200,000 and a 4,000-acre farm in Missouri in the interest of race betterment. It is planned to make the college a race betterment institution.

THE grass herbarium of the U. S. National Museum has received from the Institut Botanique, Montpellier, France, through Professor J. Daveau, conservator, a valuable package containing duplicates or fragments of specimens of Paspalum. Among them are a good series of Salzmann's collections of Paspalum from Bahia, Brazil, some of Husnot's from Martinique and other early collections not before represented in the grass herbarium.

THE sum of £100 is being offered by the Royal Society for the Protection of Birds for an invention of a portable apparatus for the detection of small quantities of carbon monoxide in mines, to supersede the use of canaries and small wild birds now forming part of the equipment of rescue brigades. All competing essays should be received by March 31

THE *Nation's Health,* which for a few years has been published in Chicago, has been transferred with its contracts, lists, good-will and other assets to the American Public Health Association to be published with the *American Journal of Public Health.*

UNIVERSITY AND EDUCATIONAL NOTES

THE Carnegie Corporation of New York appropriated $2,000,000 and paid more than $4,000,000 on previous grants for the fiscal year ended on September 30, 1927, in support of colleges, universities and other educational organizations, according to the report of its president, Dr. Frederick P. Keppel, which was recently made public. Of the appropriations $831,500 went for educational studies. "Only $84,000" was appropriated for libraries, chiefly for the maintenance of library schools. Other grants included $97,600 for adult education, $150,000 for the Carnegie Endowment for International Peace and $500,000 in encouragement of the fine arts.

ON November 8 the city of Cincinnati, by a majority of 31,000, voted for $1,425,000 for its municipal university, the University of Cincinnati. Out of these funds will be constructed an addition to the power plant, library and recitation hall and a new building for the college of education.

DUKE UNIVERSITY has received from Mr. C. C. Dula, president of the Liggett and Myers Tobacco Company, $200,000 to be added to the university's endowment fund.

AN engineering building, which will be erected at a cost of between $250,000 and $500,000, has been donated to Drexel Institute by Cyrus H. K. Curtis, of Philadelphia.

DR. F. A. WOLL has been promoted to be full professor and head of the department of hygiene in the College of the City of New York.

DR. R. F. RUTTAN, director of the department of chemistry at McGill University, and Dr. A. B. MacCallum, head of the department of biochemistry, have resigned. Dr. J. B. Collip, professor of biochemistry at the University of Alberta, has been appointed to succeed Dr. MacCallum.

M. VILLEMIN has been named professor of anatomy at the University of Bordeaux to succeed M. Picqué.

DISCUSSION AND CORRESPONDENCE

ON THE MECHANISM OF ORIENTATION OF ATOMS IN MAGNETIC AND ELECTRIC FIELDS

WHEN atoms possessing magnetic or electric moments are subjected to a field they are supposed to take up definite quantized directions with respect to the field. Experimental confirmation of this view has been made for the magnetic case in the experiments of Gerlach and Stern, but the mechanism by which the orientation takes place presents serious difficulties which may be briefly summarized as follows. In the absence of collisions and radiation the field, of course, can produce only a precession of the atom about the direction of the field. The experiments of Gerlach and Stern, however, show that the atom comes to equilibrium with its moment in definite quantized directions relative to the field and it does this in a time which is less than 10^{-4} sec. Since no collisions are taking place in the beam the only possible method by which the atom can change its energy to become oriented is by the emission or absorption of radiation. But unless the probability of a transition from a non-quantum to a quantum state is very much greater than between two quantum states this process should take something like 10^{10} sec. according to a calculation by Einstein and Ehrenfest.[1]

[1] Einstein and Ehrenfest, *Zeit. für Physik,* 11, 31, 1922.