

THE trustees of Northwestern University have announced a gift of \$8,000 from the estate of Mrs. Ellen Sage which is administered by Mr. N. M. Jones, for the establishment of three scholarships: one in the College of Liberal Arts, one in the Medical School and one in the Law School, to be known as the Rufus H. Sage scholarships.

THE degree of bachelor of business administration will hereafter be conferred on graduates of Northwestern University School of Commerce who have had two years' regular college work and have spent two years in the School of Commerce.

BEGINNING with September, 1914, the Schools of Mines, Engineering and Chemistry of Columbia University, which comprise the faculty of applied science, will be substantially graduate schools, a baccalaureate degree being required for admission. But students will have the privilege of following a combined collegiate and professional course in engineering as they now have in law, medicine and teaching. The strictly technical or professional course of study will be three years in length instead of four as at present.

THE trustees of Teachers College, Columbia University, have created a School of Practical Arts, to comprise the present Schools of Household and Industrial Arts and the departments of fine arts, music and physical education. To this end there has been constituted a faculty of education, comprising the dean and the professors whose work is largely in education, who are to direct the School of Education, and the faculty of practical arts, including the professors of fine arts, music, household arts, industrial arts and hygiene and physical training. To this latter faculty is entrusted the development of the new School of Practical Arts, which is to offer a new type of university education—a four-year course, comprising both academic and vocational courses.

THE technique of printing and publishing is the subject of a new course to be given in connection with the work in journalism at the University of Wisconsin, beginning in Feb-

ruary. The course will consist of practical talks and laboratory work on typographical composition, engraving processes, printing and similar topics. The study is intended primarily for students of engineering, agriculture, commerce, pharmacy, chemistry and other technical subjects, who desire to familiarize themselves with methods of printing and publishing in order to contribute to or do editorial work on scientific, technical and trade publications. A course in technical and trade journalism, to include lectures and practise in all the details of the work of the editor and the contributor on scientific, technical and trade publications, has also been arranged to be given next year.

HERBERT SHAW PHILBRICK, assistant professor of mechanical engineering at the University of Missouri, has been appointed professor of that subject in the College of Engineering of Northwestern University.

DR. H. E. BUCHANAN has been appointed professor of mathematics at the University of Tennessee.

PROFESSOR GEORG FABER, of the Technical School at Stuttgart, has been called to a chair of mathematics at Königsberg.

DISCUSSION AND CORRESPONDENCE

THE ADMINISTRATION OF THE WEEKS ACT

TO THE EDITOR OF SCIENCE: In consideration of Professor Very's letter in SCIENCE of January 5, I wish only to bring to the attention of the readers of SCIENCE section 6 of the Weeks Act, which has been interpreted to require an actual examination by the Geological Survey and a report based thereon which shall consist of a showing of facts rather than an expression of opinion.

Section 6. That the Secretary of Agriculture is hereby authorized and directed to examine, locate and recommend for purchase such lands as in his judgment may be necessary to the regulation of the flow of navigable streams, and to report to the National Forest Reservation Commission the results of such examinations: *Provided*, That before any lands are purchased by the National Forest Reservation Commission said lands

shall be examined by the Geological Survey and a report made to the Secretary of Agriculture, showing that the control of such lands will promote or protect the navigation of streams on whose watersheds they lie.

Those who are familiar with the eventful history leading up to the passage of the Weeks Act know that the principle invoked in section 6 was absolutely essential both to insure the constitutionality of the measure and to secure its passage. The administrative officer, however keenly he may appreciate the spirit which encouraged the movement for the preservation of the Appalachian forests, can not disregard the plain letter of the law on the statute book.

GEO. OTIS SMITH

U. S. GEOLOGICAL SURVEY

SUGGESTIONS FOR THE CLEVELAND MEETING

TO THE EDITOR OF SCIENCE: Regarding the preparations for the meeting of the American Association for the Advancement of Science at Cleveland next year, I desire to suggest the advisability of concentrating the places of meeting so far as practicable, in order that the meeting rooms may be more conveniently found, and persons who wish to pass from one meeting place to another in order to hear a large number of papers read, may be able to do so.

Much of the benefit of these meetings depends on easy access afforded them. For this reason, the best arrangements in many years was that provided in the Central High School at St. Louis. There the basement, and the first- and second-floor classrooms were used for the different sections. Geographers could in a minute's time pass out of their meeting place to hear a paper in the session of the economist and statistician, or *vice versa*. Strangers coming in the building found the directory at the entrance, which told where each section was meeting and the room. There was no wandering about the campus, as at Chicago where some of the sections were located on the third floor of buildings; nor was there any fear of intrusion or collision with professors who had classes to hear, as at the Institute of Technology, Boston; nor was

there any wandering about the streets to find where particular sections met, as in Baltimore.

A central building with wide hallways, the posting of a large directory at some outside point on a thoroughfare and the placarding of rooms, with the placard standing at right angles to the door when closed, with somebody at hand to make additional placards as needed—these suggestions seem to me worth while considering to help make our Cleveland meeting one of the best, if not the best on record.

JOHN FRANKLIN CROWELL

CHROMOSOMES IN WHEAT AND RYE

IN my paper entitled "A Theory of Mendelian Phenomena"¹ I referred to rye as having a small number of chromosomes—"six, I believe," while wheat has "40 or more," and called attention to a possible relation of these supposed facts to the great difference in variability of these two species. This reference to chromosome numbers was made on the basis of a statement made to me some years ago by a student who had made some studies of the subject. Mr. Orland E. White, of the Bussey Institution, calls my attention to the studies of Overton and of Koerniche, which indicate that wheat has sixteen chromosomes (2X number).

W. J. SPILLMAN

WASHINGTON, D. C.

HOW A FALLING CAT TURNS OVER

TO THE EDITOR OF SCIENCE: In your last issue Professor W. S. Franklin mentions having given a valid explanation of how a cat is able to light on his feet when he is dropped back downwards. He does not state what this explanation was; but gives in full a different valid explanation offered by Professor J. F. Hayford. No statement is made as to which explanation agrees with the actual performance of the cat, so it may be of interest to call attention to a set of kinematograph pictures of a falling cat, published as Plate II. of H. Crabtree's "Spinning Tops and Gyroscopic Motion." These pictures corroborate

¹ American Breeders' Association, Report VI.