ample, 1,130 persons were killed in 1910 by wild animals and 7,767 by snakes; but Bombay is, with the exception of the Punjab, at the bottom of the list with 22 deaths by wild animals and 1,247 by snakes. The statistics regarding the number of cattle killed by wild animals are not very perfect, but it is estimated that in the five years ending 1910 the number of animals killed was about 100,000, leopards accounting for 48 per cent. and tigers for 32 per cent.

UNIVERSITY AND EDUCATIONAL NEWS

COLUMBIA UNIVERSITY, Rutgers College and the Reformed Church in America receive bequests which may amount to $1,000,000 each as the three principal beneficiaries under the will of Mrs. Mary B. Pell, who died on May 26 at 182 Riverside Drive, and was the widow of John H. Pell. Each beneficiary received a direct bequest of $200,000 and an interest in large trust funds aggregating more than $2,000,000. The bequest to the Reformed Church is for the purpose of building the Wessels Memorial Hall at the theological seminary at New Brunswick, N. J., and the same name is to be adopted for a memorial hall to be erected with the bequest to Rutgers. The fund for Columbia is to erect Pell Hall, in memory of the decedent's husband, who was an alumnus of Columbia.

PRINCETON UNIVERSITY has received $100,000 from Mrs. Russell Sage toward the construction of a dining hall.

GOVERNOR SULZER has signed bills appropriating $450,000 for the College of Agriculture of Cornell University, which also receives $125,000 in the supply bill. The appropriation for the veterinary college is $70,000. A part of the additional appropriation this year is to be used for increasing salaries.

THE bill taking over the College of Physicians and Surgeons by the University of Illinois was advanced to its third reading in the legislature, on June 5, after the defeat of amendments offered by those opposing the project. The state is being asked to appropriate $200,000 for maintenance of the institution, this being a part of the $4,300,000 appropriation asked for the University of Illinois.

THE Plant Industry Hall of the University of Nebraska, containing the departments of agricultural botany, entomology, experimental agronomy and horticulture was dedicated on June 10, the address being made by Professor John M. Coulter, professor of botany in the University of Chicago.

THE following appointments have been made to the faculty of the new school of technology of the Johns Hopkins University: Professor C. C. Thomas, of the University of Wisconsin, to the chair of mechanical engineering; Professor C. J. Tilden, of the University of Michigan, to the chair of civil engineering; and Professor J. B. Whitehead, hitherto professor of applied electricity in Johns Hopkins University, to the chair of electrical engineering.

E. DANA DURAND, former director of the United States Census, has accepted the position of director of the Bureau of Research in Agricultural Economics, at the Minnesota Agricultural College.

PROFESSOR PIERRE BOUTROUX, of the University of Poitiers, France, has been elected professor of mathematics at Princeton University.

DR. R. G. HOSKINS, Ph.D. (Harvard, '10), has been appointed associate professor of physiology in the Northwestern Medical School. Dr. Hoskins, who has been working on internal secretions, will devote three fourths of his time to research and one fourth to teaching.

CHARLES T. KIRK, Ph.D. (Wisconsin, 1911), has been appointed professor of geology in the University of New Mexico. According to the State law of 1909, establishing a Natural Resources Survey, Mr. Kirk becomes ex-officio state geologist, and will spend the present summer in reconnaissance work in that capacity, with headquarters at Albuquerque.

DR. EDWARD C. DAY, Harvard foreign fellow, Naples, Italy, has been elected instructor in zoology, Syracuse University. Dr. M. W. Blackman, of the department of zoology, Syracuse University, has been elected associate professor of entomology in The New

York State College of Forestry, Syracuse University.

AT the Alabama Polytechnic Institute, Auburn, Alabama, changes in the staff have occurred as follows: Dr. E. P. Sandsten, professor of horticulture and state horticulturist, resigns to accept a similar appointment in Colorado State College. A. B. Massey, formerly assistant professor of botany and bacteriology in Clemson College, becomes assistant professor of botany. H. N. Conolly, field agent in horticulture, resigns to accept similar work in Colorado State College. Charles S. Williamson, Jr., formerly assistant professor, is promoted to associate professorship in the department of chemistry. Jesse M. Jones is appointed head of the department of animal industry, succeeding Dan T. Gray, who has accepted a similar position in the North Carolina Agricultural College.

THE Board of Agricultural Studies of the University of Cambridge, in consultation with the president of the Royal Agricultural Society, has nominated Mr. C. R. Fay, M.A., Christ's College, to be the Gilbey lecturer on the history and economics of agriculture.

DISCUSSION AND CORRESPONDENCE

THE CHARACTER OF THE ENDOSPERM OF SUGAR CORN

IN a recent publication[1] dealing with the F_2 generation of a cross between two forms of *Zea Mays*, the one with sugar endosperm, the other with waxy endosperm, the existence of two alternative factors, one for sugar (*S*), the other for waxy (*X*) is assumed. Absence of *S* results in waxy endosperm, absence of *X* results in sugar endosperm. When both are present a horny endosperm results. The F_2 generation, involving 22,132 kernels, consisted of those with horny, waxy and sugar endosperm in a proportion closely approximating the 9:3:4 ratio.

The assumption of two alternative factors does not meet the requirements, since on this basis a ratio 9:3:3:1 is to be expected. On the basis of Mr. Collins's theory, too, a zygotic construction *ssxx*, involving $\frac{1}{16}$ of the F_2 generation should result in neither a waxy nor a sugar endosperm. Yet the numerical results clearly indicate a sugar endosperm for this portion of the F_2 generation. ("Careful scrutiny of the sweet seeds failed to show any consistent differences that would allow another class to be separated, . . .").

A more plausible explanation suggests itself in an analogy to Cuénot's hybrids between agouti and albino mice. Assuming a basic factor *S*, responsible for the sugar endosperm, a factor *W*, which, acting together with *S*, produces a waxy endosperm, and a modifying factor *H*, which acting together with the factors *W* and *S* produces a horny endosperm, I would suggest for the zygotic constitution of sugar corn *HHwwSS*, and for the zygotic constitution of *Zea Mays* with waxy endosperm *hhWWSS*. On this basis the F_1 generation of a cross sugar × waxy should possess the zygotic constitution *HhWwSS*, which, according to our premises, should result, and in fact does result, in a horny endosperm. Selfing of the F_1 generation should yield the following combinations:

HWS *HWS*	*HwS* *HWS*	*hWS* *HWS*	*hwS* *HWS*
HWS *HwS*	*HwS* *HwS*	*hWS* *HwS*	*hwS* *HwS*
HWS *hWS*	*HwS* *hWS*	*hWS* *hWS*	*hwS* *hWS*
HWS *hwS*	*HwS* *hwS*	*hWS* *hwS*	*hwS* *hwS*

The combinations *HHWWSS* (1), *HHWwSS* (2), *HhWWSS* (2) and *HhWwSS* (4), should result in a horny endosperm, since they contain all three factors; the combinations *HHwwSS* (1), *HhwwSS* (2) and *hhwwSS* (1), should yield a sugar endosperm, since the factor *W* is lacking, and the combinations *hhWWSS* (1) and *hhWwSS* (2) should produce a waxy endosperm, since the modifying

[1] Collins, G. N., and J. H. Kempton, "Inheritance of Waxy Endosperm in Hybrids with Sweet Corn," U. S. Dept. Agric., Bur. Pl. Ind., Circular 120, 1913.