

varied apparatus necessary for the study of small animals and plant forms. The laboratories will be equipped, some of them for general students of biology and some for special research. Salt water from the lake and fresh water from other sources will provide for the aquaria and other receptacles. Investigations already made show that Devils Lake swarms with life in great numbers though not in great variety of species. North Dakota has a rare opportunity to study the biological stages of variation, adaptation and isolation, and it is the purpose of this new station to provide for biological students and to offer facilities for trained investigators who may desire to carry on research under such conditions as exist in that region.

THE *Auk* states that the Museum of Comparative Zoology at Harvard University has received during the past year the most noteworthy accessions to its bird collection in its history. These include, as the most important, the E. A. and O. Bangs collection, containing approximately 24,000 skins, chiefly from North and middle America and the West Indies. Most of those from Central America were taken by Mr. Wilmot W. Brown and Mr. C. F. Underwood, well known as intelligent and energetic collectors, the former noted for his skill in preparing skins of birds and mammals. The specimens have been determined by Mr. Outram Bangs, with the assistance of Mr. Ridgway and Dr. Richmond. They also include the types of the many new forms described in recent years by Mr. Bangs. Another gift of unusual importance consists of several thousand specimens from the interior of central and western China, presented by Mr. John E. Thayer. A collection of over 3,000 skins collected in Palestine have been acquired by purchase. A considerable number of other skins and mounted specimens of unusual interest have also been acquired, by gift or purchase, from other sources.

#### UNIVERSITY AND EDUCATIONAL NEWS

THE late Arthur Hill, regent of the University of Michigan, has bequeathed \$200,000

to the university for the erection of an auditorium.

THE gift of \$650,000 by Mrs. Russell Sage to pay for the Hillhouse property, of Yale University, will release a considerable sum which, according to the correspondent in the *N. Y. Evening Post*, will probably be used for work in biology.

THE building of the University College of Medicine, at Richmond, Va., was destroyed by fire on January 6, entailing a loss estimated at \$200,000.

THE board of trustees of the Massachusetts Agricultural College having received propositions from the Boston & Albany Railroad and also from electric railroads centering in Springfield to run agricultural educational trains over their respective lines, it has been voted, "That this board will heartily cooperate with these railroads, the Board of Agriculture, the Chamber of Commerce and other organizations in the state to further the development and success of this project. To this end it will tender the services of its teachers and experts and place at the disposal of these railroads such equipment and apparatus as may be required."

AT the annual meeting of the governors of the Nottingham University College on December 22 it was announced that it was the intention of the council to develop immediately a scheme for submission to the court of governors that application might be made for a full charter, so that Nottingham College would become a degree-conferring university.

DR. C. J. KEYSER has been appointed head of the department of mathematics of Columbia University, to succeed Professor J. H. Van Amringe, who retires from active service at the close of the academic year.

DR. J. L. SIMONSEN has resigned his position as assistant lecturer and demonstrator in chemistry in Manchester University to accept the chair of chemistry in the University of Madras. Mr. Alfred Holt, M.A., D.Sc., has been appointed as his successor.

Mr. L. A. BORRADAILE, M.A., of Selwyn College, has been appointed university lecturer in zoology at Cambridge University.

#### DISCUSSION AND CORRESPONDENCE

##### COTTON ANTHRACNOSE

SINCE Dr. Atkinson's work on cotton anthracnose, 1890-3, little has been done on this now important disease. Recent work here has brought out some very interesting points which in a way confirm some of Dr. Atkinson's theories in connection with the infection of seed and seedlings. Last winter while working with seed taken from a field where the disease occurred the previous summer, I found anthracnose occurring in a number of germination tests. This led me to search for the fungus in the tissue of the seed. I found that by taking bolls which were slightly diseased and mature it was an easy matter to find the fungus filaments beneath the seed coats and in the tissues of the cotyledons. The spores of the fungus are also readily found between the seed coats and the cotyledons of mature seed. Numerous inoculation experiments during the past summer show that the fungus seems to prefer the seed and lint to other portions of the plant. In fact, in some cases the attack is confined to these parts, there being no sign of the disease on the walls of the bolls. In some cases where the bolls mature and the cotton opens out with no sign of disease other than slight discoloration of the lint, the fungus will be found on such lint and in the seed. Such seed, of course, when planted produce diseased seedlings and thus spread the disease. This season numerous outbreaks of anthracnose in various sections of this state have been traced to diseased seed. Some of these occurred where cotton had never been planted before. From an economic standpoint this phase of the problem seems to be very important. The south is now sustaining a loss of millions of dollars annually from anthracnose. It has been estimated that the state of Georgia loses over \$14,000,000 annually and a very conservative estimate of the loss of South Carolina would be from \$400,000 to \$500,000 annually.

Since the twentieth of last July I have been unable to isolate the fungus from the fields where cotton was planted last year. From this it seems that a one year's rotation with disease-free seed might eliminate the disease.

Interesting results have also been obtained in reference to seed treatment, method of infection of the bolls, resistance of different varieties of cotton, breeding resistant strains, etc., all of which will be published at an early date in report of the South Carolina Experiment Station.

H. W. BARRE,  
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SOUTH CAROLINA EXPERIMENT STATION  
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##### METAPHYSICS AND MENDELISM

There are reasons for regarding man as a chimpanzee on which an additional element, "manness," has been superposed. There you have man expressed or explained in terms of his anthropoid ancestor. The characters of a frog are undoubtedly latent in the frog's tadpole. What is to hinder, therefore, expressing or explaining the frog in terms of the tadpole by saying the tadpole carries the characters of the frog? The logic is sound in the statement that the tadpole contains frog factors or "frogness." The question is merely as to the helpfulness of sound logic used that way.<sup>1</sup>

The helpfulness of sound logic, aside from its use as a mental discipline, is usually based on its relevance to the matter under discussion. As regards the chimpanzee we shall doubtless all agree with the learned Californian if he will advance scientific proof that in homo-simian hybrids "chimpanzeeness" and "manness" behave toward each other in Mendelian ratio; for it is Mendelian inheritance, it must be remembered, that the English scientists are talking about. If the tadpole contained the potentiality of developing either into a frog or, let us say, a salamander, according to circumstances under experimental control, we might consider "frogness" as a factor, the presence or absence of which would have a determinative influence in development.

<sup>1</sup> "The Hypothesis of 'Presence and Absence' in Mendelian Inheritance," W. E. Ritter, *SCIENCE*, September 17, 1909.