

Finance Committee, John H. Caswell, John H. Hinton, C. A. Post.

Vice-president Kemp was then called to the chair, and the president delivered his annual address, entitled 'The Academy of Sciences.' At its close a vote of thanks was carried, on the motion of Professor E. B. Wilson. The academy then adjourned.

HENRY E. CRAMPTON,
Recording Secretary.

DISCUSSION AND CORRESPONDENCE.

NOTES ON NEGRO ALBINISM.

LAST spring, while engaged in archeology work in Coahoma County, Mississippi, I noticed some negro albino children hoeing in a cotton field. The fact that there was more than one in the family led me to make inquiry which brought out the following facts. The grandfather of these children was an albino. He married a normal negro woman and had three normal sons. All three sons married. Two have had only normal children; but the third, who has been twice married, is the father of fifteen children, four of whom are albinos. The first wife had five normal children and one albino; the second, six normal ones and three albinos. I was unable to learn anything about the ancestry of these women.

The particular interest in the case is that the anomaly reappears in one of three lines of descent in the third generation. According to Mendel's law of heredity, we should not expect it to reappear at all. Yet, if we suppose that albinism was recessive in the mothers of these albino children, the observed result is just what we should expect.

These albinos, two of whom have attained full stature, and others in the vicinity, are noticeably taller and have broader shoulders than their normal fellows. Are these accompanying characters?

WILLIAM C. FARABEE.

NOTE ON MR. FARABEE'S OBSERVATIONS.

MR. FARABEE has kindly shown me the proof of his interesting 'Notes on Negro Albinism,' and generously consents to the publication of the following note with his own.

The point needs emphasizing that albinism in mammals in general is a *recessive character* in the sense of Mendel's law. Mr. Farabee writes as if this fact were generally recognized, but I doubt whether this is so. Last winter in my lectures on heredity, which were attended by Mr. Farabee, I showed from the statistics published by von Guaita in 1900 that albinism in mice is a recessive character. This result has been confirmed by Mr. G. M. Allen, who has been carrying on breeding experiments with mice, under my direction, for the past two years. Some results of Mr. Allen's work have been in manuscript for several months, but their publication has been unavoidably delayed. Meanwhile Bateson (1902), in two recent important papers on heredity, has made the first published recognition of the fact that albinism in mice is a recessive character.

During the last few months I have been able to demonstrate experimentally that albinism is a recessive character likewise in guinea-pigs and rabbits. Mr. Farabee's observations indicate that the same is true also in man. It is probable, therefore, that this is a general law of heredity in all mammals. But Bateson has shown that in certain crosses among poultry white plumage is a *dominant* character; consequently we must apparently limit our generalization for the present to mammals. Yet it should be pointed out that the white breeds of fowls used by Bateson in his experiments are not pure albinos, since the eyes, at least, of white birds are pigmented. Consequently we must exercise caution in generalizing from those experiments.

In the case of negro albinism observed by Mr. Farabee, the result is throughout a Mendelian one, on the hypothesis that albinism is recessive. For the original male albino married to a normal negro woman should have only normal offspring, in whom, however, *the albinic character is recessive*. The recorded observation is three sons, all normal.

Two of the sons, apparently, married wives who were 'pure dominants,' *i. e.*, who were entirely free from the recessive (albinic) character. The theoretical expectation in such cases is that half the offspring will be

pure dominants, and the other half dominants in whom the recessive character is latent; but both sorts will be alike (normal) in appearance, as actually observed.

The third son appears to have married each time a woman in whom the albinic character was recessive. The probability of such unions is indicated by Mr. Farabee's observations of *other albinos 'in the vicinity.'* For to every albino produced, where crossing with normal individuals takes place, there are certain to be produced *at least twice as many* 'normal' individuals containing the recessive character. If, as supposed, the third son and each of his wives contained the recessive character, we should expect one in four of their offspring to be an albino; the recorded observation is four in fifteen, a close approximation to the calculated result.

W. E. CASTLE.

ZOOLOGICAL LABORATORY, HARVARD UNIVERSITY,
December 16, 1902.

MAGAZINE SCIENCE.

TO THE EDITOR OF SCIENCE: The following letter from Mr. C. E. Borchgrevink, in regard to the criticisms published by me in SCIENCE of September 13 on the captions of the illustrations of his article on the eruptions of Mt. Pelée which appeared in *Leslie's Monthly* for July, has just been received. In justice to the author, I trust that you will publish this extract from his letter in your columns.

"From a correspondent I hear that you have made an attack on me based upon the article published in *Leslie's Monthly*. I am not responsible for those statements or for those errors in regard to photographs, which never met my eye before they appeared in *Leslie's Monthly*. Very few of those photographs came from my hand and I never of course claimed them." E. O. HOVEY.

SHORTER ARTICLES.

AGGREGATE ATAVIC MUTATION OF THE TOMATO.

ON former occasions I have described two remarkable cases of aggregate phylogenetic mutation of the tomato which occurred suddenly under my personal observation, in which publications * I used the term mutation in

* SCIENCE, November 29, 1901. *Bull. Torrey Bot. Club.*, August, 1902.

the special sense that has been adopted by Professor De Vries. The following remarks refer to reports that have reached me from correspondents concerning equally sudden and complete atavic reversion of similar plants and their fruit, for which process I here use the term mutation in its ordinary sense. While the main fact of atavic mutation is clearly stated in these personal reports, they are wanting in certain details necessary to a fuller study of the subject. They are, however, important as aids in an interesting line of inquiry.

In May, 1902, I received from Mr. H. J. Browne, of Washington, D. C., who was then in Havana, Cuba, on business, a package containing a cluster of small spherical tomatoes of the variety known as the Cherry tomato. An accompanying note informed me that they were obtained from the proprietor of a plantation a few miles from Havana who had grown them there, and who assured Mr. Browne that they were the immediate product of seed of the large and fine variety well known throughout our country as the Trophy. These Trophy seed were obtained from the United States and planted in Cuba. The resulting crop of fruit was excellent and perfectly true to that variety as regards size, color, consistence and edible quality; but the seed of those Cuban-grown Trophy tomatoes invariably produced there the small cherry variety. The planter further stated that essentially the same result occurred in the case of all the several other improved varieties of tomatoes, the seed of which he had also procured from the United States, and that the degeneration was in all cases complete, heritably permanent and of uniform character; and that the change equally affected the whole crop. Because of this constantly occurring and hereditary atavism the planter was obliged to procure fresh seed from the United States for every acceptable crop of tomatoes grown on his Cuban plantation.

Quite independently of the foregoing statement I lately received a similar one from Miss Mary E. Starr, of Morristown, N. J. Her observations were made upon her father's plantation on the Bayou Tèche, St. Martin's