

cable; its members are appointed for a period of six years, one-third changing every two years. Owing to former dissensions in the faculty of the University, the time of all the professors expires on June 15th; and the Board, at its meeting in June, will elect an entire new faculty, including president and professors. This applies only to the professors of the University, not to members of the Agricultural Station Staff. Dr. Rudolph J. J. de Roode, Chemist of the Station, resigned the first of February, to accept a more lucrative position in New York. His position has been filled by the appointment of B. H. Hite as chemist and G. Wm. Gray as assistant chemist, both of Johns Hopkins University.

SOCIETIES AND ACADEMIES.

THE BIOLOGICAL SOCIETY OF WASHINGTON.

At the meeting held March 9, 1895, the papers were presented, of which abstracts are here given.

Dr. C. W. Stiles spoke of *A double-pored Cestode with occasional single pores*.* Great stress has been laid upon the arrangement of the genital pores in the classification of the Cestoda, but this character alone is not of generic value. Stiles has already shown that although *Thysanosoma Giardi* generally possesses alternate genital pores, it occasionally possesses double pores in its segments. In American rabbits, the speaker finds two species of tapeworms, one of which possesses irregularly alternate genital pores and a peculiar arrangement of the eggs in capsules—such as is found in the genus *Darainea*; this makes it possible that this species is the adult stage of the armed cysticercosis described from the intestine of rabbits in his Note 31; if this be so, the parasite would be classified with the genus *Darainea*, although, according to Railliet's

present classification, based upon the arrangements of the pores, it is an *Andrya*. The second tapeworm possesses *double genital pores*. If classified on its pores alone, it is a *Ctenotania* Rail. It differs from the type of the genus (*Ct. marmota*) in possessing a double uterus instead of a single uterus. One strobila of this rabbit tapeworm (*Ctenotania* sp.?) was found in which most of the segments possessed double pores, but thirteen segments were found with irregularly alternate pores. This anomaly is extremely important, both from a morphological and a systematic standpoint, and the speaker expressed the opinion that a thorough study of a large series of Cestoda in any group would result in greatly modifying the present classification and in suppressing a large number of species.

Dr. Theo. Holm discussed *Œdema of Violet Leaves*. Leaves of a cultivated garden variety of *Viola odorata* affected with this disease were studied, and their anatomical structure showed several points of interest. The diseased parts of the leaf showed brownish, wart-like swellings on both faces of the blade, above and between the nerves. The following changes were observed in the tissues: The epidermis became very thick-walled, and the stomata modified into narrow, irregular openings. The palisade tissue showed numerous (three or even four) tangential divisions, and swelled up very considerably, pushing out through the epidermis. The pneumatic tissue, which seemed to be the most affected, had increased in size, the cells having divided themselves very considerably so as to form a loose, open tissue of large, roundish cells. The petiole showed similar symptoms of the disease, especially along the keel and the wings. The collenchymatic tissue underneath the epidermis, the bark parenchyma, and the endodermis showed numerous divisions, so that similar swellings were produced like those observed on the leaf blade.

*To be published as 'Notes on Parasites, 36: A double-pored Cestode with occasional single pores' in *Centralblatt für Bact. u. Parasitenkunde*, 1895.

Dr. Geo. M. Sternberg read a paper entitled *Explanation of Acquired Immunity from Infectious Diseases*, an account of which will be printed in the next issue of SCIENCE.

M. B. WAITE,
Recording Secretary.

SCIENTIFIC JOURNALS.

THE JOURNAL OF MORPHOLOGY.

THE latest number of the *Journal of Morphology* is of exceptional importance. Mr. Frank Lillie's article upon the *Embryology of the Unionidæ* contains a most careful investigation of the relations of the earliest cells in the embryonic cleavage to the adult organs of the body. This is followed by Oliver S. Strong's memoir upon the *Cranial Nerves of the Amphibia*, which opens up a new and thoroughly philosophical interpretation of the cranial nerves, based not upon their numerical relations, but upon their physiological components. This is the result of an investigation of a very difficult character which has been under way for the past five years. The third paper, by Pierre A. Fish, upon the *Adult Nervous System of the Salamander*, is followed by a brief but interesting paper from Professor W. K. Brooks upon the *Sensory Clubs of Certain Coelenterates*.

The most important feature of this number, however, is contained in three short preliminary papers at the end of the *Journal*, occupying only a few pages, but apparently establishing a new law in the field of fertilization phenomena. The discovery has been made independently by Dr. Wheeler and by Dr. A. D. Mead, of the University of Chicago, and by Professor E. B. Wilson and Mr. A. T. Matthews, of Columbia College. In course of correspondence the authors of these papers learned that they had independently reached the same unexpected conclusion, and it was arranged by the editor that their three communications should appear together. While they mark an important step forward in our knowledge of

fertilization, at first sight the results obtained by Dr. Wheeler and Professor Wilson are directly contradictory. Dr. Wheeler proves conclusively that in the fertilization of *Myzostoma* (a parasitic form of Annelid) there are no traces of the archoplasm or dynamic substance in the spermatozoon, and that this element is entirely resident in the ovum. Professor Wilson, on the other hand, independently working on the eggs of the echinoderm *Toxopneustes*, proves that there is no trace of the archoplasm in the ovum, but that it is entirely resident in the spermatozoon. It is too soon to make a general induction from these observations, but at present they appear to wholly set aside the brilliant announcement of Fol in 1891, which has been supported by Guignard and Conklin, that both the ovum and spermatozoon contain archoplasm, and that one feature of segmentation is a 'quadrille of the four centers' derived from these male and female archoplasmic masses. These observations do prove, however, that the archoplasm may be derived exclusively either from one sex or the other, and they show that Fol's law was based upon defective preparations. They tend also to show that the archoplasm is not a bearer of the hereditary qualities, but necessarily a purely neutral dynamic agent.

THE PSYCHOLOGICAL REVIEW, MARCH.

THE current number is largely taken up with the Princeton meeting of the *American Psychological Association*, already reported in SCIENCE (January 11). Authors' abstracts are given of sixteen papers presented, and the address of the President, Prof. William James, is given in full. Mrs. Franklin's paper on *Normal Defect of Vision in the Fovea* was also read before the Association. The only remaining paper consists of Contributions from the Psychological Laboratory of Columbia College. Dr. Griffing describes experiments on the relations between der-